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EDITORIAL



Christmas Greetings To You All

On behalf of the Federal Executive and Federal Council of the Wireless Institute of Australia, I extend to all Amateurs, Short Wave Listeners and all those interested in Amateur Radio, hearty good wishes for the Christmas Season.

Unlike most countries, Christmas in Australia is a time of warm weather and gay, carefree holiday spirit spent in the open air; a break from the past year's work and problems when many Amateurs give their spare time to finishing off those projects which it wasn't possible to complete during all those working weeks now behind them; a holiday period before commencing a new year.

Whatever you may be doing, wherever you may be, I wish you a happy festive season from my colleagues and myself, and I trust you will find those spare hours off from your other activities to devote to your hobby of Amateur Radio.

1959 has witnessed the conclusion of a milestone in the history of Amateur Radio in Australia . . . the International Telecommunications Union Administrative Radio Conference in Geneva for which you, as Amateurs, subscribed your donation to send your own representative with the official Australian Delegation. The final outcome of this mammoth conference will not be known for

some time yet, although by the time this issue of "Amateur Radio" goes to press you will probably have had a final report from John Moyle, VK2JU, and in the new year you will have the opportunity of hearing him personally address you at your Divisional meeting. You will be advised of the date as soon as practicable and I would ask each and every one of you to set that date aside as a "must".

In the years ahead, we must all actively plan to use the bands we have allocated expressly for our use. If we don't we shall have a hard fight to retain them for the demand on frequencies in the ever widening sphere of communications and the jet age into which we are now moving is difficult to appreciate. But it is huge and a growing danger to our very existence and a matter to which we must on no account turn a deaf ear and a blind eye.

I also extend, on behalf of the Federal Council and Federal Executive, festive greetings to our advertisers, without whose support "Amateur Radio" could not be published. As our Institute membership grows, so will the Institute grow; and as the Institute grows, so, I trust, will the support of our advertisers.

A Very Happy Christmas to you all.

G. MAXWELL HULL,
Federal President, W.I.A.

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A Multiband Antenna System for the Newcomer*

COMBINATION ANTENNA COUPLER AND MATCHING INDICATOR

LEWIS G. McCOY, WHICP

If you have been searching for a multiband antenna system, this article should be of considerable interest to you. We will describe an antenna coupler for the 3.5 through 28 Mc. bands that has a built-in standing-wave ratio bridge. The s.w.r. bridge can be used for matching and as an output indicator. Also included in the article is the description of a multiband antenna. Whether you are a newcomer or an old-hand, this may be exactly what you have been looking for.

You may have read or heard that an antenna coupler is an unnecessary item in the ham station. Before going any further let's see what a coupler is and what it can do for you.

WHY AN ANTENNA COUPLER?

Many newcomers to Amateur Radio elect to use antenna systems that do not require antenna couplers. Such systems as multiple dipoles, trap-type antennae, and the off-centre-fed type have become quite popular. The reason for the popularity of these systems is that they can normally be attached directly to the transmitter (with a feed line, of course), and be made to work. When an antenna system is used that requires a coupler, the coupler must be adjusted in order for the system to work. As the systems mentioned above do not require couplers, it can be said that they offer "operating convenience." However, to mix a metaphor, you cannot have your cake and get it for nothing! There are many excellent reasons why a coupler should be used and they far outweigh any operating conveniences of the non-coupler type installation.

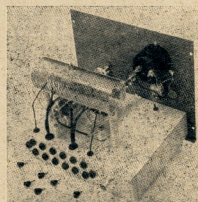
First, an antenna coupler usually eliminates the harmonic problem. We are speaking now of the common problem of second-harmonic radiation (7.4 Mc. from 3.7 Mc. operation).

In many instances the use of a coupler will eliminate the harmonic t.v.i. problem. If sufficient harmonic attenuation is not achieved with the coupler, a low-pass filter must be used; here again a coupler plays a very important role.

A low-pass filter is designed for a particular impedance of coaxial line, usually 50 or 75 ohms. This line must be reasonably flat (have a low standing wave ratio), in order to prevent damage to the filter components. It is difficult to keep the s.w.r. low on feed lines used with the types of antennae mentioned earlier, at least on all the Amateur bands and frequencies. However, it is a very simple matter to take care of this problem when using a coupler. The normal procedure is to connect the transmitter to the coupler via a short length of coax line. By adjusting the coupler the coax line can be kept perfectly flat on any frequency within the Amateur bands. The ideal place to install the filter is in this length of line.

In many instances, it may become difficult or impossible to couple power from the transmitter to the antenna because the coupling circuit doesn't have enough range. This deficiency can be eliminated by the use of an antenna coupler. With the system described here it is possible to adjust the coupler so that the transmitter is always working into the best load for its coupling circuits.

The antenna system we will describe uses open-wire feeders and here is another advantage in using a coupler. Of all the types of lines used by Amateurs, open-wire feeders have by far the least loss. Also, many other types of lines can be affected by moisture, so that their characteristics change. Open wire feeders are not affected by moisture, at least not as much as some other lines.



Two steel pillars are used to support the coil on the chassis. The bottom of the coil is open. Sensitivity control R2 is mounted on the panel below MA1.

All too many Amateurs think of an antenna coupler only in terms of transmitting. By installing the antenna change-over relay or switch between the transmitter and coupler, the latter can be used on the receiver. If you don't think this can be a big help just ask any Amateur who uses such a set-up. The coupler provides, in many cases, additional selectivity for the receiver. Strong commercial signals outside the Ham bands have a nasty habit of getting into the receiver, causing image troubles or cross modulation. A coupler helps to reduce this problem.

Before getting into the actual construction of the coupler, let's take up one more point that the newcomer may not be familiar with—series or parallel tuned feed lines. The main purpose of a coupler is just what the name implies, to couple the power from the transmitter to the antenna feed line. The end of the feed line that is attached to the coupler presents a load to the

coupler. With a high s.w.r. whether this load is high or low impedance depends on the electrical length of the feed line and antenna. If it is low it is easy to couple power from the transmitter if a series-tuned circuit is used in the coupler. When the load is a high impedance, parallel tuning should be used. We'll show you how to design your antenna and tell you what type of tuning is required in a moment, but first let's take a look at the coupler.

THE ANTENNA COUPLER

At first glance, Fig. 1, the circuit of the antenna coupler, may appear complicated. However, don't be scared away; it is actually quite simple. The method of changing from series to parallel tuning while maintaining coupling at the centre of the antenna coil is a novel one cooked up by WIDX. As you will find when you read the section of the article on the antenna, the use of series or parallel tuning will depend on the antenna and feeder lengths.

In order to show how the coupler is used for series or parallel connections, we have drawn two simple circuits in Fig. 1, B and C. For series tuning, the feed line is attached to terminals 1 and 2. This splits the antenna coil into two equal parts and puts them in series with the line. When parallel tuning is required terminals 1 and 2 are shorted with a jumper and the feed line is connected to 13 and 14.

Band-changing the coupler is accomplished by shorting out portions of the coils L2 and L3. The taps and leads from the coil are wired to pin packs that can be connected together with shorting jumpers. Normally, the unused portion of the coil should be jumped with the shortest possible line. However, no ill effects were apparent in testing and using the coupler as shown. We had considered a switch for making the coil changes but a suitably switch, one that would fit the requirements of voltage breakdown and mechanical layout, was impossible to find—at least, at prices we were willing to pay. The pin jacks and plugs cost only a few cents each.

The coupler as described will easily handle the Novice 75-watt power limit. Any readers using transmitters in the popular 150-watt class can alter the coupler for this power level by using a variable capacitor with adequate voltage rating for C2. The coil stock used for L1, L2 and L3 should safely handle about 300 watts without overheating so the controlling factor is the r.f. voltage rating of C2.

The s.w.r. bridge utilizes a length of RG-58/U to house the pickup wire of the bridge.¹ A double-pole switch is required to switch the pickup lead ends so that either forward or reflected power can be fed to the indicating circuit.

¹ Dunc., "The 'Mickey-Match,'" "QST," Nov. 1958; "A.R.," July 1959.

CONSTRUCTION

The unit shown here was built on a 2 x 7 x 9 inch aluminum chassis which is housed in a cabinet. If the reader elects to use a bigger capacitor (greater plate spacing) for C2 a larger chassis than the one specified would be more suitable. Layout of the components is not critical but it is a good idea to use the photographs as a guide.

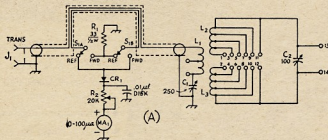


Fig. 1—(A) Circuit diagram of the antenna coupler and s.w.r. bridge. (B) Series tuning. (C) Parallel tuning. C1—250 pF. variable capacitor. C2—100 pF. variable capacitor. C3—1N34A germanium diode. J1 Coaxial chassis receptacle. L1, L2, L3—See Fig. 2 and text. MA1—0-100 microammeter. R1—33 ohms, ½ watt, carbon. R2—20,000 ohm potentiometer. R3—1N34A germanium diode. R4—D.P.D.T. "tone control type" switch.

Fig. 2 is a drawing of the three coils—L1, L2 and L3. These three coils are all part of a single length of B. & W. 3907-1 coil stock. This material is 2 inches in diameter, 10 turns per inch, No. 16 tinned wire. Before attempting to make the coils for the coupler, study Fig. 2 so that you are completely familiar with the drawing. With a ruler measure off 68 turns (6-13/16 inches) and cut this piece from the original stock. A hacksaw is a good tool for cutting the stock support bars. Unwind one turn from each end of the piece.

This will leave a 68-turn coil. Count in from the end of the coil and cut the wire at the 26½ turn. Do this at each side. We used a pair of side cutters to make the cuts and slightly bent the adjoining turns away from the cutting point in order to get at the wire. Unwind a half turn from these points and this will leave you with three separate coils, all on the same support bars. Refer to Fig. 2 for the tap points. You will find that if you bend the wires adjacent to the tap points in toward the axis of the coil you'll have plenty of room to solder the tap leads onto the coil.

The link, L1, is too large for 14, 21 and 28 Mc., so part of it must be shorted out when using these bands. Two soldering lugs should be soldered to the 1st and 6th turns of the link counting from the C1 end. The lugs are mounted at the top of the coil and bent so their ends are close together. An alligator clip can be used to short the two lugs. Use a copper clip as iron tends to heat up when used in r.f. power circuits. Incidentally, this is an important point to remember when doing any transmitter construction work involving r.f. circuits. Iron or steel will heat up and actually steal power from the circuits.

Use nonmagnetic hardware for mechanical connections wherever possible.

Two statite standoff insulators, ½ x ½ inch are used to support the coil. Soldering lugs should be soldered to the first turn on each of the two outside coils. The lugs are then mounted on the standoffs (see Fig. 2).

Statite standoffs, ½ inch high should be used to mount C1 and C2 on the

material can be peeled off. A 14-inch length of No. 20 solid tinned wire, plastic insulation is used for the bridge pickup wire. Mark the braid on the coax 6 inches from one end and 4 inches from the other. Next, bunch the cable together and with a sharp pointed tool make a small opening in the braid at the marked points. Feed the pickup wire under the braid, in one opening and out the other. Stretch the braid out along the cable until about one inch of the pickup wire projects from each opening. Look at the bottom view of the coupler and you will see how the coax is coiled up so that the two pickup wire ends are close to switch contacts. Once we found the correct configuration, a short length of tinned wire was wrapped around the braid and soldered. This holds the assembly in place and makes it easier to handle.

The terminating resistor of the bridge, (R7) is a half-watt carbon 33-ohm unit. Be sure to use a carbon resistor, not wire-wound. A rubber grommet should be installed in the chassis top directly over the switch. This opening is for the lead from the 1N34A diode that goes to R2. When soldering the diode leads hold the wire with a pair of long-nose pliers between the body of the diode and the point being soldered. This will conduct the heat away from the diode, thereby preventing damage to the unit. The sensitivity control, R2, should be mounted below the meter.

THE ANTENNA SYSTEM

Before discussing adjustment procedures let's take a look at the antenna system. There are a few simple rules that should be followed (if possible) when installing an antenna. Try and get the antenna as high as possible. Also, keep it clear of nearby objects. In other words, don't run it alongside rain gutters or through branches. Dress the feed line away from the antenna at right angles, or as near so as possible. Many Amateurs bring their feed line straight down from the antenna to a post or support and then into the shack.

However, if you cannot follow the above rules, it doesn't mean an antenna won't work. For example, if you are cramped for space you can drop the ends of the antenna down in order to increase the length. If the antenna must run near metal objects don't scrap your plans. Put the antenna up and try it; you may be pleasantly surprised.

How long should the antenna be? The answer to this question depends primarily on the lowest frequency band

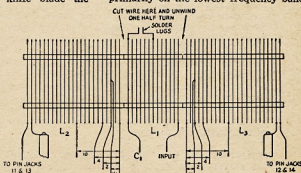
chassis. Both the rotor and stator of C2 must be insulated from the chassis and cabinet panel. An insulated coupling should be used on the rotor shaft. A statite through-chassis insulator is used for the input connection to bring the lead up to C1.

The coil taps and ends (terminals 1 through 14) are brought below chassis top through four rubber grommets, two ¼ and two ½ inch. Sockets for terminals mount in ½ inch holes and are held in place by retaining rings. A simple method for mounting a socket is to place it in the hole, slip the retaining ring over the end and then use a short piece of ½ inch diameter pipe to force the retaining ring over the socket. Six plugs are needed for the shorting plugs. The wires for the two longer shorting lines are 3 inches long and the short one is 2 inches long.

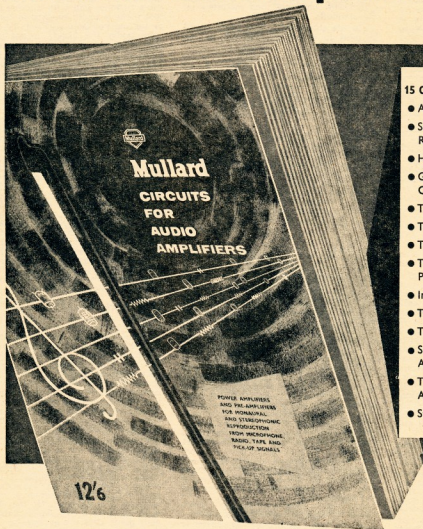
MATCHING INDICATOR DETAILS

A 24 inch length of RG-58/U is needed for the s.w.r. bridge circuit. The first step is to remove the vinyl covering from the cable. If you score the covering with a knife blade the

Fig. 2—Drawing of the antenna and link coils, L1, L2 and L3. The numbers indicate the terminals to which the coil taps and leads are connected.



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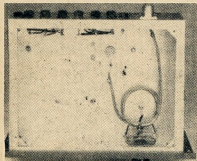
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you plan on using and, of course, how much space is available. We will assume that you want the antenna for 3.5 Mc. as the lowest band. If it is long enough for this band it will be adequate for the higher bands.

Fig. 3 gives the information you'll need to find the antenna and feeder lengths. The length of the antenna, A, should be at least a quarter wavelength long at the lowest frequency band. Otherwise, the effectiveness of the antenna will suffer. When you make the system according to the formula $(A \div 2) + B$ equals a quarter wavelength, or multiple thereof, you will simplify the coupling problems. For an odd number of quarter wavelengths you will use series tuning at the coupler, and for an even number, parallel tuning.

A common problem is finding enough space for the antenna, the average city lot being too small for a half-wave-length antenna on 3.5 Mc. As mentioned earlier, the antenna can be shorter than a half wave and still work. The feed line can be lengthened or shortened to make the system fit the formula.



This view shows the method for connecting the coax input line and pickup wires. The terminal jacks for the coil leads and taps are mounted along the rear chassis wall.

You can make your own open-wire feeders or use the T.V.-type open-wire line. Don't use solid-dielectric twin-lead for the feeders; this type of line is satisfactory for some types of feeders but not in tuned lines. You can use a short run of the transmitting type twin-lead to go from the coupler to the feed-through insulators on the wall of the shack. The insulated twin-lead will simplify your installation problems, but don't use any more than you have to. For the antenna, you can use No. 14 Copperweld or a similar type. (Electric fence wire makes good antenna material.) Use soft-drawn wire in a home-made feed line.

GETTING THE SYSTEM WORKING

Connect the coupler to the transmitter with a length of 52-ohm coax, either RG-58/U or RG-9/U. If you are using a low-pass filter it should be installed in this length of line. Also, the antenna relay should be inserted at this point. Attach the feed line to the coupler and make the connections for series or parallel as required. (See Table 1.) Set R2 in the indicator circuit at maximum resistance and switch S1 to re-

flected power. Tune up the transmitter and resonate the final amplifier for plate meter dip. If you have an output drive control it is a good idea to tune up with reduced output. Next, adjust C1 and C2 in the coupler for minimum reading on the a.w.r. indicator. You will probably have to decrease the resistance of the potentiometer, R2, in order to get a reading. When C1 and C2 are adjusted for minimum reading (this is usually zero or close to it), switch S1 for forward power and set R2 for about half-scale meter reading. Now you can tune up the transmitter for full loading as indicated by your plate meter and the bridge meter. You may have to reduce the setting of R2 to keep the needle on scale. Incidentally, once your coupler is adjusted for the minimum reading or matched condition you don't have to change the coupler adjustments for that particular frequency. All loading adjustments are made at the transmitter.

TUNING INFORMATION

Parallel	Series
Connect feeders to 13 and 14, jumper 1 and 2.	Connect feeders to 1 and 2.
Short the following terminals with jumpers:—	
3.5 Mc.	—
7.0 Mc.	11 and 9 — 12 and 10
14.0 Mc.	11 and 7 — 12 and 8
21.0 Mc.	11 and 5 — 12 and 6
28.0 Mc.	11 and 3 — 12 and 4

Table 1.

Mark down the control settings of the coupler for this particular frequency and then proceed to the next higher band. Keep a record of the settings and it will be a simple matter to set the coupler up in a hurry.

If you should find that you cannot get a matched condition on some band, you may have to try different tap points. However, be sure to try both series and parallel tuning first.

If you are looking for additional information on antenna masts, how to support the antenna, construction of feed lines, and so forth, we suggest you study "The Radio Amateur's Handbook" and "The A.R.R.L. Antenna Book."

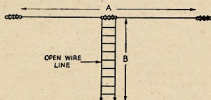


Fig. 3.—The length A should be more than a quarter wavelength at the lowest operating frequency. When you determine the length of A to half the distance, add a sufficient length of feed line (B) to equal a quarter wavelength or multiple thereof. For example, let us assume you can put up an antenna 80 feet long and you plan to operate on the 3.7 Mc. Novice band as the lowest frequency. From the formula: $246 \div \text{frequency} = 246 \div 3.7 \text{ equals } 66.5 \text{ ft.}$

66.5 minus 40 equals 26.5 ft. the feeder length, or 2 multiplied by 26.5 equals 53 133 minus 40 equals 93 ft. This can be carried out for greater feeder lengths, depending on the requirements of the installation.

A SIMPLE SQUELCH CIRCUIT

V. KERR,* VK4LK

A QUICK glance at the accompanying circuit diagram will soon recognize the "evergreen" clamp tube, so popular with pentode class C transmitter stages. For those who wish to try a squelch circuit in the output of an existing receiver, and not wishing to go to the complication of some squelch circuits, this particular layout will be the answer.

It has good sensitivity and works without complication. No claim is made for the originality of the idea, having been used in commercial equipment for many years. For the most satisfactory result a pentode first audio in your receiver is necessary, although it is possible to use the plate circuit of a triode first audio in a like manner with passable results.

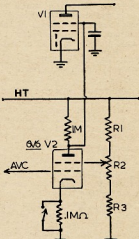


Fig. 1.—Squelch Circuit.

The use of a 6M5, 6AG7 or other similar tubes may be even better as bias requirements are lower and a.v.c. will cause squelch to open on a weaker signal. V1—Pentode 2nd detector. V2—6V6, 6AQ5, etc. R1—Two 47K ohm 1 watt resistors paralleled. R2—10K ohm wire wound pot. R3—Two 7K ohm 1 watt resistors paralleled.

The only adjustments necessary to set the squelch in operation after having wired it into the circuit, are to close the switch, shorting out or grounding the cathode circuit of the 6V6 (6AQ5, etc.) and adjust the 10,000 ohm potentiometer until the output of the receiver cuts off without any signal being received, that is, anything passing through the receiver from the front-end to generate an a.v.c. voltage.

As soon as a signal is tuned, a.v.c. voltage generated, the bias generated on the grid of the 6V6 will allow normal voltage on the screen of the second detector, with the audio output of the receiver as usual.

Opening the switch in the cathode circuit of the 6V6 will render the squelch inoperative, allowing normal audio stage function.

*Dalrymple Road, Charters Towers, Qld.

ELECTRICAL SHOCK: FACT AND FICTION*

BY DANIEL P. PETERS

DO YOU BELIEVE THAT . . .

Electricity kills by burning its victims to death?

Small currents are less harmful than large ones?

Low voltages are not lethal?

There are no harmful after-effects if you survive?

If so, here is the shocking truth!

ANY man on the street can probably supply you with the information that an electrical shock can be lethal. However, surprisingly few people actually know how or why. For those who work in the presence of voltages and currents that may be harmful, ignorance of the true nature of shock is dangerous. Knowing what actually happens is the first step toward taking the proper precautions and, in the case of electrical shock, there are all too many misconceptions. For example:

FICTION: Electricity kills by burning its victims to death or "shorting" them out.

FACT: Medical records prove that electrical currents great enough to cause actual burning kill less often than do currents of much lower magnitude. The notion that an electrical current "shorts out" its victim in the way that lightning can short out an electrical circuit, while closer to the truth than the "burn" theory, is still misleading. Actually, electricity kills by overriding the control that the nervous system exercises over the body.

The human body has sometimes been compared to an automatic factory. Muscles are its motors. Master-minding the operation of these motors is that the fabulously complicated calculator—the brain. This message centre sends instructions to the controlled parts of the body via an intricate electrochemical network we know as the nervous system. Doctors take advantage of the electrical nature of the nervous system with electrocardiographic and electroencephalographic equipment, which measure the small impulses associated with heart and brain, respectively.

If overridden by an outside current, the electrical impulses of the nervous system lose control of body functions. During brain surgery, for example, doctors have applied small potentials to various sections of the brain that have caused movements of limbs and induced mental images. Through such electrical prodding, much is being learned about the mysteries of the mind.

Not so helpful, however, are the uncontrolled currents that flow during electrical shock—currents that swamp out the signals going to various parts of the body. Particularly dangerous are such currents that enter the heart and respiratory centres. Thus, a key factor in death by electrical shock is

the path of the undesired current within the human body, as well as its magnitude.

Death following shock is generally caused by one of two direct effects: **ventricular fibrillation** or **respiratory-centre paralysis**.

To understand ventricular fibrillation, we should know a little about how the heart operates. Basically, it is a pump forcing blood through the body. Controlling the heart muscles is a minute, electric current occurring periodically in the right auricle of that organ. If the conduction system of the heart is disturbed, say by an outside electric current, the muscles respond in a haphazard fashion, rendering the organ useless as a pump. Known as **ventricular fibrillation**, this phenomenon generally causes death since the vital body organs are not supplied with fresh blood.

Respiratory-centre paralysis is the second most lethal effect of electrical shock. Normal breathing is controlled by a stimulus from a section of the hindbrain known as the **medulla oblongata**. The electrical stimulus travels through a complex nerve network to the breathing muscles and lungs. An outside current can easily paralyse the network and cause breathing to stop. Actually death from shock can be caused by **respiratory-centre paralysis**, by **ventricular fibrillation**, or by both.

FICTION: Small currents are less harmful than large ones.

FACT: For obvious reasons, the exact intensity of current that will cause death in a human being is not easy to determine. However, much research has been conducted in this direction. One careful study in this area was undertaken by researcher L. Alexander and published by medical organisations on the American continent about two decades ago. Table 1 presents key information extracted from his report. There are other complications showing somewhat different tabulations—such factors as whether males or females are involved, whether the current is a.c. or d.c., and the methods used in research may affect the data—but the table will serve as an illustrative guide.

Current in Amperes	Effect
0.0002-0.0003	Tap.
0.00075	Pinch.
0.001	Grip.
0.005-0.015	Unpleasant stimulation.
0.015-0.019	Paralysis of muscles through which current flows.
0.025	Possible permanent damage to tissues and blood vessels.
0.07 and higher	May be lethal.

Table 1.—Shock current intensities and their effects.

Currents of 0.07 to 0.09 ampere generally cause death by ventricular fibrillation, if they pass through the chest. However, **much lower currents** can also prove fatal. A current of only 0.015 ampere passing directly through the chest can render the victim incapable of releasing himself from the circuit, while simultaneously paralysing the muscles of the diaphragm needed in breathing. Unless he is released from the circuit with outside help, he will die from asphyxia even though the heart and respiratory centres are not affected directly.

From the chart we can also see why people say that a charged conductor "holds" its victim. Once muscle paralysis occurs, he can do nothing to free himself. However, in some cases, muscles contract with enough violence to "throw" the victim. This, of course, may cause secondary injuries if he hits something in his flight, but also may be the means of saving his life. A larger current would be more likely to do this than a smaller one. More will be said on this score later.

FICTION: Low voltages are not lethal.

FACT: Thus far we have considered only the effects of a **current** passing through the body. However, voltage is the force that determines current magnitude. The amount of current for a given applied voltage, of course, depends on resistance—and the resistance of the human body varies widely. It depends, among other things, upon the path of current; the health of the individual; the duration of the current flow; the condition of the skin (wet, dry, etc.); and the area of contact. Measure the resistance of your body from arm-to-arm under various conditions; you will find that, while perspiring freely on a warm day, the resistance is so low that 25 volts could produce sufficient current to cause death. Confirming this, there are cases on record of deaths caused by 32-volt farm lighting systems. Yet, under more favourable conditions, the 120-volt house lighting system would cause only a tingle!

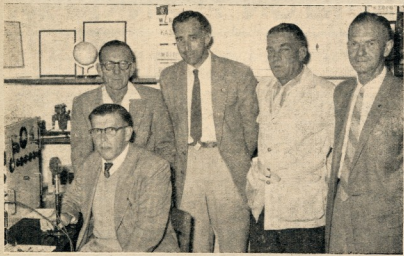
FICTION: High voltages are always more dangerous than low ones.

FACT: Strangely enough, shock from potentials greater than 1,000 volts may be **less dangerous** than those from lower voltages. The reason for this is that the high currents associated with high voltages may cause all muscles—including those of the heart—to contract suddenly and violently. The heart muscles may contract to such an extent that fibrillation **cannot** occur. In such cases, the heart may resume normal action if the victim is released in three or four minutes. A recovery rate of 62% among cases where persons were knocked out by potentials above 1,000 volts was observed during a study made in 1933. The corresponding rate at much lower voltages was only 39%.

(Continued on Page 7)

* Reprinted from "Electronics World," May '59.

AMATEUR STATION FOR APPRENTICESHIP WEEK EXHIBITION



During Apprenticeship Week, September, 1959, the Grafton Group of the N.S.W. Division of the W.I.A. conducted a Radio Exhibition and operated a station using the Division's call sign, VK2AWI, at the Grafton Technical College. The photograph shows the Grafton Amateurs, left to right: seated, Geoff, VK2SR; Roy, VK2NY; Terry, VK2JS; Peter, VK2TB, and Bill, VK2OE.

ELECTRICAL SHOCK:
FACT AND FICTION

(Continued from Page 6)

Not only the voltage and current magnitudes but also the current body paths are important. Any route involving the heart or brain is dangerous, as pointed out earlier. The "Journal of Industrial Hygiene" reported in 1925 that, of a number of cases involving fatal shock at voltages below 250, 90% of the victims had marks on their left hands. This indicates that shocks through the left hand—hence, nearer the left side and heart—are much more dangerous than those through the right hand. Thus, if you tend to keep one hand in your pocket while near live circuits, make it the left.

FICTION: There are no harmful after-effects if you survive a shock.

FACT: If you suffer a shock and have sustained no apparent injury, it may not mean that your troubles are over. Electrical shock sometimes damages nerve tissue. This may cause a wasting away of muscle—a slow, progressive disturbance that may not become evident for weeks or even months. Other delayed effects may produce personality changes, amnesia, mental inertia, blood-vessel diseases, cataracts, destruction of the pancreatic tissues, and heart conditions.

So much for the effects of electric shock. What should be done if you see someone rendered unconscious by electricity?

Every person who works near electrical equipment should acquaint himself with rescue techniques.

The first step is to break the connection between the victim and the power source. If possible, do this by turning off the power. The next best thing is to remove the victim from the voltage source—without endangering yourself. Use a wood board or other non-conducting object. As soon as you can touch the victim safely, apply artificial respiration.

Speed is essential. Any delay at all greatly reduces the chances of recovery. Of some 600 cases studied, over 70% of those receiving artificial respiration within three minutes recovered. Just one more minute of delay dropped the figure to 58%. If there is no heart or respiratory action and treatment is delayed five minutes, death is virtually certain.

If you are alone, do not take time to go for help. Start artificial respiration immediately. If the person can be saved, you can do it as well as anyone. And don't stop even if the victim appears dead. Eight hours have elapsed, in some cases, before the victim responded. The only sure sign of death is rigor mortis—and only a physician should judge whether that condition exists.

Above all, don't let the victim bite you!

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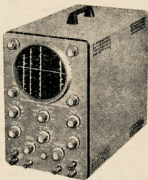
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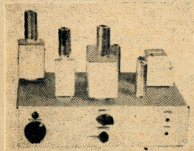
Break-In at Its Best

AUTOMATIC CHANGE-OVER AND RECEIVER MUTING

RALPH ROSENBAUM, W5ECP

NO BETTER endurance and practicability tests can be given to a piece of electronic equipment than during Field Day. On Field Day different operators will often find electrical faults in equipment, faults which go unnoticed by the owners. Sometimes, unfortunately, these defects are not discovered until the equipment breaks down under field conditions.

For example, I remember the disaster which occurred during the last two operating hours of the 1958 Field Day Contest. The Field Day operators at W5EKK were working over forty stations per hour until, to their horror, they saw a small cloud of smoke rise from my de luxe break-in system and all the operating tent with the pungent odor of a burnt carbon resistor. The receivers immediately went dead, and it was obvious that the t.r. switch in my break-in system had failed.



The complete t.r. monitoring unit is built on a 7 x 12 x 3 inch aluminum chassis. The plug-in turret-socket units are a convenience in construction and adjustment. The one at the left contains the 6BZ7 and associated components. The 6C4 audio oscillator unit is next to the left, while the one at the centre houses the 12AX7 muter/amplifier. The shielded tube to the right is the 6AQ5 output tube.

Nevertheless, there existed a very good reason why the failure had taken place. The break-in system had to be keyed both on c.w. and phone if the muting and t.r. switching units were to function properly. This caused the failure since, during rapid band changes to phone operation, the operators would forget to key the break-in system. The disastrous result was that the t.r. tube and its components had burned out. In addition to this main electrical weakness, I received several complaints that the break-in relay used to key the transmitter was unable to follow the high speeds of the bug.

After Field Day I was so disappointed with my break-in system that I decided to make a different approach to the keying problem. In contrast to the custom of keying a transmitter by a break-in system, I decided that the r.f. power output from the transmitter must be the triggering agent for the

● In the break-in system described here, W5ECP combines the features of earlier individual units in a single package. No alterations in transmitter or receiver are required.

break-in system. Keying the transmitter directly would eliminate the keying relay problem, and using r.f. energy as the triggering agent would enable the new system to function automatically on c.w., phone, and s.s.b.

T.R. SWITCH

The break-in system is composed of two sections—the t.r. switch (Fig. 1A) and the audio-muting and keying-monitor circuits (Fig. 1B). The latter circuits include an audio-muting switch, a side-tone generator for c.w. monitoring, and an audio amplifier to drive a speaker.

Although I had a choice of several t.r. switching circuits, I selected W3LYP's arrangement¹ for several reasons. First, he had tested the switch with a kw. of s.s.b. power. This would tend to indicate that a higher s.w.r. could be tolerated at lower power levels. A t.r. switch for Field Day use should meet this requirement since the

1 Arvono, "An Electronic Transmitter-Receiver Antenna Switch," "QST," October, 1957.

s.w.r. on the feed lines is often very high. The gain offered by his circuit meant that my present preamplifier could be discarded. Last, W3LYP's circuit works automatically when r.f. is applied to its input.

In W3LYP's circuit (Fig. 1A), one triode section of a 6BZ7 is used as a grounded-grid amplifier coupled to the transmitting antenna. The second triode section is used as a cathode follower feeding the receiver. The two stages are coupled using a multiband tuner, C2L31A, which covers 10 through 80 metres without switching. The tuning is set once for each band. Normal bias for V1A is provided by the d.c. drop across the resistance of RFC1. When the transmitter is keyed, a high bias is developed across the grid leak R1, cutting the stage off almost completely. A few months ago W8EJG came out with a t.r. switch² which would make an ideal substitute for the builder who would like to eliminate W3LYP's grid tank circuit.

MUTER AND MONITOR

The audio portion (Fig. 1B) in this system is a modification of W6ICB's "Monoclipper."³ Although this circuit has many fine qualities, I found that the clipper circuit he employed was an inconvenience. Since many of the

2 Quick, "T.R. Switches," Hints and Kinks, "QST," September, 1958.
3 Lafferty, "The Monoclipper," Hints and Kinks, "QST," February, 1955.

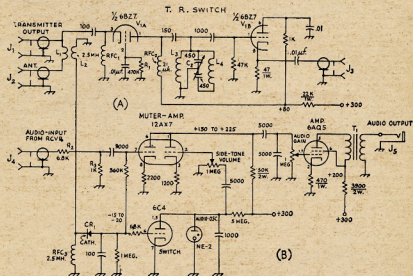


Fig. 1.—Circuit of W5ECP's break-in system. Capacitances less than 0.01 μ F. are in pF. Resistances are in ohms and resistors are $\frac{1}{2}$ watt unless marked otherwise.

- C1—Dual 450 pF. variable (b.c. type).
- CR1—1N34 crystal diode.
- J1, J2, J3—Coax receptacle or phone jack.
- J4, J5—Open-circuit jack or phone connector.
- L1, L2—See text.
- L3—22 turns $\frac{1}{8}$ inch diam., 16 turns per inch.
- L4—19 turns 1 inch diam., 32 turns per inch.
- R1—Blocking-bias resistor.
- R2, R3—Signal voltage divider (see text).
- RF1, RF2, RF3—2.5 mH., 125 mA. r.f. choke.
- RF4—21 μ H. r.f. choke.
- T1—Audio output transformer, 5,000 ohms to 2.2 ohms, 5 watts or more (500 ohm tap if headphone operation is desired).

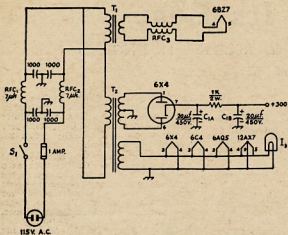


Fig. 2.—Circuit of the power supply section of the break-in system of Fig. 1. Unless otherwise indicated, capacitances are in pF. Capacitors marked with polarity are electrolytic. Resistance is in ohms.

- C1—Dual 20/20 μ F. 450 volt electrolytic.
I1—6.3 volt panel lamp.
RFC1, RFC2—7 μ H. r.f. choke
RFC3—See text.
S1—S.p.a.t. switch attached to 6AQ5 audio gain control.
T1—6.3 volt, 1 amp. filament transformer.
T2—Power transformer, 700 volts r.m.s., c.t., 70 mA. with 6.3v. 2a. winding.

ied from unity to three db on the different bands.

I found that a 12 x 7 x 3 inch chassis gave ample room to mount all parts. Since the potentiometer provides the necessary attenuation of the side tone during phone and s.s.b. operations, I did not include a switch in the 6C4 circuit.

Fig. 2 shows the circuit diagram of the power supply section. The heater of the 6BZ7 should be isolated from ground so it is fed through a bifilar choke, RFC3, from a separate 6.3 volt transformer. RFC3 is made by winding two strands of No. 26 enamelled wire simultaneously on a $\frac{1}{2}$ inch diameter form to a length of 14 inches.

TESTING AND TUNING

The output power from the transmitter and the s.w.r. on the antenna feedline will determine the negative triggering bias for the audio circuit. Since r.f. coupling yielding more than 60 volts will damage the 1N34 diode, the amount of coupling from the inner coax wire should be carefully adjusted to obtain between -15 and -20 volts.

The first step in adjusting for proper negative voltage is to couple the break-in system at some point in the antenna feed system where the s.w.r. is less than 5 to 1. If an antenna coupler is employed, the unit should be placed between the coupler and the transmitter.

When the power output from the transmitter is between 50 and 100 watts, the bus wire joining the two female

present receivers have well-developed a.v.c. and noise-limiting circuits, I converted the clipper circuit into an audio-amplifier circuit. W6ICB's audio circuit is triggered by negative bias which is obtained by rectifying r.f. energy coupled from the hot "inner" conductor of the coax line. This bias cuts off both the triode muting section of the 12AX7 and the 6C4 which is conducting so heavily that the voltage on its plate is not great enough to trigger the neon oscillator. When the neon oscillator is fired the side tone is amplified by the other triode section of the 12AX7 before it reaches audio amplifier. I found that the keying of the side tone is sharp and pleasant.

Depending on the signal voltage level at the input of the 12AX7, the audio output from the receiver can be either muted completely through the receiver's audio gain-control range, or muted over only a portion of its range. In my set-up, if the signal is taken from the receiver's speaker voice-coil terminals, the input to the 12AX7 is so low at all settings of the receiver's audio gain control that the output from the muter is completely cut off. However, if the signal is taken from the high impedance headphone jack of the receiver, output from the muter will be cut off completely over only about half of the receiver's audio gain-control range. When the gain is increased, the signal input to the 12AX7 overrides the bias, and output from the muter is not completely cut off. This permits direct monitoring of the transmitter signal when the receiver audio gain control is advanced. The point at which muting starts and stops is governed by the values used in the voltage divider consisting of R2 and R3. If the output from the receiver's headphone jack is not sufficient to overcome the 12AX7 bias, R2 should be decreased and R3 increased, keeping the total resistance the same. In some cases, it may be possible to eliminate these two resistors entirely, connecting the input coupling capacitor directly to the input terminal.

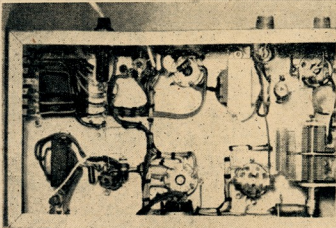
CONSTRUCTION

I used plug-in turret sockets. Although the cost is high, the sockets are certainly worth the money when experimental work is being done. Repair time is kept to a minimum since all

components are easily accessible. The sockets not only look neat on a chassis, but also make wiring and lacing under the chassis very easy. I would suggest that the builder use either these plug-in turret sockets or standard turret sockets in the construction of this system.

Although any construction practices may be followed, I suggest that the builder observe the following:

- (1) The t.r. switch circuit should be isolated from the other unit, and its components should be placed as close



to the antenna coax connectors as possible. Also, the lead from the coupling coil L2 to the input of the 1N34 diode should be short.

(2) Another ground wire should be run from the grid tank circuit of the t.r. switch to a common ground connection in the 6BZ7 circuit.

(3) The leads connecting the tank-circuit components should be kept short, and the tank-circuit coils should be placed in the open.

(4) Low voltage should be maintained on the plates of the 6BZ7 to prevent high frequency oscillations. Gains var-

antenna coax connectors should have a three-turn coil L1 at its centre. The diameter of the coil should be less than $\frac{1}{4}$ inch. The bias coupling coil, L2, fits over L1. The diameter of L2, which consists of twelve turns, should be large enough to allow a clearance of $\frac{1}{4}$ inch between the two coils. Both coils are wound with No. 16 wire. The coils are then soldered in place along with the 100 nF capacitor.

If the negative bias is too high, the builder should lift the end of L2 from ground. There should be a drop of about 5 volts. With power outputs be-

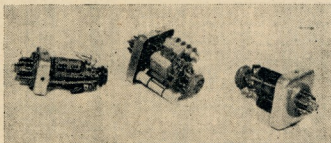
tween 100 and 500 volts, L1 should be eliminated and a straight wire should join the two female connectors. The proper number of turns on L2 should be determined experimentally.

With power outputs greater than 500 watts, a straight wire supported on the stand-off insulators and running parallel to the first wire will probably pick up sufficient r.f. energy.

Remember that if the s.w.r. on the line to which the unit is coupled has not been previously checked, the turret socket housing the IN34 should be pulled from its octal socket to prevent damage to the diode.

Where the unit may be used in Field Day installations, or frequently changed from one antenna system to another, it might be a good idea to shunt RFC3 with a variable resistor (pot.) which should first be turned so as to short out the choke, and then gradually advanced until the signal input to the IN34 is just enough to trigger the muter and side-tone generator. A more expensive diode with a higher inverse voltage rating would be another solution.

I sincerely hope that the builder will have as many enjoyable hours of operating with this system as I have had!



Interior views of the three plug-in assemblies. Left to right, they are for the audio oscillator, the switch and the muter/amplifier.

Technical Correspondence

GATED SCREEN MODULATOR

Editor "A.R.," Dear Sir,

Having been interested in "cheap" methods of modulation for some years, I noted with special interest the article in "A.R." Jan. 1956 by VK2AYB and made a mental note to "have a go at it sometime." However, I did not get round to it.

About a month ago I mentioned the matter to another VK6 who was having trouble with his grid modulation. Later I sent him the circuit and when he experienced some bother, I made one up to find out why he was having trouble. It quickly became evident that the trouble he was having was not the fault of the "Gated Screen".

I have since had numerous QSO's during which I have changed from the generally used plate and screen modulation, using 807s in AB2, to the "Gated Screen" modulator which is almost identical to the published circuit. On very few occasions has the party at the other end been able to notice the difference. When they have been informed of the change and given another comparison, some of them have commented, "Well, perhaps the 'Gated Screen' does not sound as full-bodied"—and normally I modulate fairly heavily.

I would recommend to all those having bother with control, or screen grid modulation, and to those desiring—for any reason—a "cheap" modulator, to read again the above mentioned article and "give it a go"; I feel sure they will not be disappointed, thanks are due to VK2AYB.

—L. G. Wilson, VK6LG.

EDWARD AND HIS BEAM

You've heard all about Young Albert
Who got set up by lion too Zoo.
Well this is about our Edward
How he got mucked up, too.

You remember 'twas lion named Wallace
Who swallowed our Albert at Zoo.
Well, 'twas a VK3 down at Lincoln
Who got our Edward in poo.

When Eddie went to work DX
He found himself in mess
So he went up to drawing room
And he had word with Bess.

"Tomorrow I'm buildin' ZL Specch."
Said Edward to his spouse,
"Not with your blinkin' form, you won't
You'll wreck the flamin' house!"

So Edward dreamt of his ZL
How he worked a hundred countries at will,
How he worked the Abominable Snowman,
An' was hail'd as the ace from Townsville.

Next day he gathered conduit,
Wire an' rusty nails,
And went to work with vigor
Amidst the neighbours' walls.

He worked and he worked for a fortnight,
Till array spread all over the sky.
Then pressed little switch on transmitter
And his feed line started to fry.

Not daunted by disappointment and failure
As such must surely seem,
He took grid dip and field glasses
And hid himself to his beam.

Whilst watching P.A. through field glasses,
From a perch all studded with nails,
Some clot looked up and shouted,
"Say, mate, what 'orse 'as drawn rails?"

Now our Edward is slow to anger
But now he grew livid with rage,
Said: "Go talk to your clobber at Five Dock,
You both should be in a cage."

Three months to the day of erection,
Weak signs were heard from the north.
All the Hams in VK were alerted
And swung their beams backward and forth.

'Twas a VK2 down at Five Dock,
Who first heard the call of distress.
Appears our Edward had some kind of trouble
And was really doing his block.

He swore and he swore like a trooper
Till air was considerable blue,
And said here stick your beaut ZL Special,
I'll build me a G4ZU.

TRANSFER OF P.M.G. RADIO BRANCH HQ. ADMINISTRATION

Members are asked to note that as from Monday, 2nd November, 1959, the offices of the Radio Branch, Headquarters Administration, are now located on the First Floor, Electrolytic Zinc Building, 390 Lonsdale Street, Melbourne, C.I. (On the northern side of Lonsdale Street on the corner of Hardware St. about midway between Queen and Elizabeth Streets.) The telephone for general enquiries will be MF 5551.

Correspondence or enquiries calling for attention by the Victorian Administration of the Radio Branch, should continue to be directed to the Superintendent, Radio Branch, Postmaster-General's Department, 425 St. Kilda Road, Melbourne, S.C.2 (Telephone: BM 2673).

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Prices on Application.

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VICTORIA

COMFORTABLE WIN BY TASMANIA

HONOURS this year go to Tasmania for winning the Trophy with a comfortable margin from Western Australia, the present holders of the Trophy. The participation percentage was the greatest factor in determining the results and in this regard credit must be given to Tasmania and Western Australia for their organisation which was clearly apparent from the small number of logs not submitted from those States. While no accurate figures are possible for the number of missing logs on account of the possibility of mistaken calls, the approximate number is as follows: VK2 53 (43% of the total starters), VK3 36 (30%), VK4 17 (30%), VK5 23 (28%), VK6 2 (2%), VK7 1 (1.5%).

An award has been made to South Australia for gaining the Highest Log Average.

A number of logs were received which, although accurate, were poorly set out and made the task of the checkers more arduous. A sudden drop in accuracy in one log caused the Committee some concern until it was realised that the young hopeful (?), who had copied the log out, had got the call signs and the serial numbers out

of phase for a complete page! Another log became famous for being compiled on a sheet of paper nearly as large as a sheet of newspaper. Still others thought it would be easier for the Committee if the phone and c.w. contacts were shown separately, but of course this only made it more difficult to locate a particular contact from the serial number.

In the Receiving Section, some excellent listeners' logs were received. It was pleasing to note the interest shown by three Scout groups who submitted lengthy logs. However, there is no provision in the present rules for a group effort; consideration could well be given to incorporating a group section in next year's contest. Two of these logs did not comply with Rule 3 of the Receiving Section, but the third log (from the Second Wilston Senior Scout Group) was accurately compiled and the lads deserve special commendation for their efforts.

In order to make the results in the transmitting sections more interesting and informative, the number of contacts is shown in addition to the score for each competitor.

REMEMBRANCE DAY CONTEST 1959 RESULTS

State	Total State Score	Total Average	Licenses	Log Entries	Percent	Log Average	Total State Points
New South Wales	14513	813	1279	69	5.39	210	1595
Victoria	19317	836	1228	84	6.84	230	2157
Queensland	6975	596	417	39	9.35	179	1248
South Australia	15563	845	445	61	13.71	255	2979
Western Australia	13067	849	253	85	33.6	154	5239
Tasmania	11669	705	130	65	50.0	180	6540
Papua/New Guinea	2174	—	61	3	—	—	—

STATE TROPHY

Tasmania	6540
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HIGHEST STATE LOG AVERAGE

South Australia	255
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SECTION LEADERS

Phone—	Points
VK2AHH—N. A. Hanson	1015
3AIT—G. C. Traill	853
4PQ—N. L. Martin	940
5EN—A. R. Nitschke	1038
6CL—L. H. Clinch	921
7RX—K. A. Johnston	806
Open—	
VK2BO—E. L. Andrews	960
7ADL—I. F. Berwick	975
4RH—A. L. Hoey	530
5WO—A. S. Condon	1085
6RU—J. E. Rumble	1072
7KA—K. E. Millin	771
9RO—R. S. Gurr	1082

C.W.—	Points
VK2QL—F. T. Hine	526
3ZQ—N. L. Storck	380
4JF—J. C. Files	205
5XK—A. J. Hewitt	361
6VK—V. J. Kitney	168
7CH—C. Harrison	388
9AU—R. A. Taylor	121

NEW SOUTH WALES

Top Six Logs—	Points
VK2AHH	1015
2BO	960
2AE	787
2DO	709
2AHM	703
2YN	703

Phone—	Cont. Pts.		Cont. Pts.
VK2AHH	345 1015	2AHV	56 103
2YN	229 703	2AWF	64 102
2AEB	164 508	2APQ	26 99
2JA	165 448	2AQJ	46 94
2ACD	147 400	2AKU	32 83
2BR	135 349	2AJY	21 76
2ABE	135 346	2APQ	26 68
2AFP	126 334	2WT	20 61
2ALL	120 308	2ALU	30 60
2AJL	109 306	2XT	28 54
2AJL	94 260	2AAJ	12 46
2XP	96 252	2AAB	18 43
2ADL	60 222	2AOU	13 39
2BU	59 195	2KV	13 38
1PM	69 182	2ANL	7 36
2IV	50 181	2GI	17 31
2FZ	46 177	2AMA	11 24
2AYW	51 152	2VH	17 23
2AXT	53 145	2MP	17 23
2AEY	42 114	2AQR	11 17
2QV	49 117	2W	6 16
2ACO	48 113	2AWX	6 14
2ACQ	51 108	2TP	6 12
2AEE	54 104	2GJ	5 9

Open—	Points
VK2BO	315 960
2ASZ	286 787
2AD	258 709
2IO	213 703
2FN	235 690
2HC	84 282
2OT	74 225
2VN	63 190
2AJQ	75 189
2AFV	38 112
2AJH	31 102
2WH	10 32

C.W.—	Points
VK2QL	155 526
2GW	88 320
2HV	48 139
2ANU	30 86
2OW	24 71
2RJ	22 64
2JM	20 59
2HZ	21 49
2ZO	8 38

VICTORIA

Top Six Logs—	Points
VK3ALZ	975
3AIT	853
3ADW	845
3JG	823
3OM	803
3HG	723

Phone—	Cont. Pts.		Cont. Pts.
VK3AIT	287 845	3AGG	50 162
3ADW	267 814	3JC	61 157
3AFJ	267 814	3AJV	48 153
3OM	255 803	3YQ	37 152
3JG	215 743	3AMK	62 149
3LV	190 555	3AHN	52 139
3ASB	163 537	3DY	19 135
3ATM	181 507	3AZR	53 135
3ABT	150 457	3AXW	52 133
3KC	163 418		
3AKF	142 377	3JE	30 131
3RN	147 356	3PH	45 128
3DF	100 341	3QP	36 125
3CP	104 339	3AOM	45 119
3TG	107 335	3JH	31 110
3ADD	103 334	3QV	44 102
3AUG	116 334	3GE	30 95
3ATN	88 332	3DU	30 87
3AMT	99 302	3ALD	29 83
3ALP	85 297	3WM	25 83
3AJG	107 282	3ARJ	14 65
3AN	77 256	3RZ	19 60
3SM	87 234	3AFF	25 56
3AUL	90 229	3PP	20 50
3IE	110 220	3AGG	11 45
3ZU	62 173	3AKW	19 38
3AEL	50 173	3AJJ	10 26
3EF	20 170	3ZC	9 25
3NX	65 167	3AFP	8 20
3PE	57 164	3DP	10 15

Open—	Points
VK3ALZ	298 975
3HG	174 723
3APV	110 326
3XU	84 253
3ATR	58 194
3XB	58 164
3KE	48 128
3PR	33 101
3OH	30 65
3XH	20 47

C.W.—	Points
VK3ZO	135 380
3AKN	70 230
3ZA	65 214
3CK	26 20
3RJ	30 84
3ARV	31 77
3KS	21 47
3CN	17 38
3J1	14 35
3UM	9 22
3YS	11 22
3KB	6 15

QUEENSLAND

Top Six Logs—	Points
VK4PQ	940
4DJ	878
4FH	838
4RH	530
4SN	364
4LB	329

4LB		329	
Phone—	Cont. Pts.		Cont. Pts.
VK4PQ	318 940	4ZM	27 59
4DJ	318 878	4LW	38 55
4FH	171 838	4JG	15 45
4LB	118 329	4EC	22 48
4WJ	114 307	4BQ	22 48
4PS	82 266	4CB	17 45
4XR	64 148	4AF	23 43
4LN	53 143	4HZ	19 42
4L	58 140	4ZL	15 45
4FT	50 117	4PR	13 29
4W	46 113	4GN	13 27
4ZV	41 79	4LE	7 20
4TW	41 79	4EP	15 45
4NG	20 61	4RW	10 15

Open—	Points
VK4RH	192 536
4SN	116 364
VK4FE	110 323

C.W.—	Points
VK4FJ	68 205
4KE	76 196
4W	67 187
4CJ	25 43
4AW	6 13

SOUTH AUSTRALIA

Top Six Logs—

	VK5WO	Points
5EN	1038	1085
5FT	945	945
5MG	764	764
5XMI	671	671
5KK	569	569

Phone—

	Cont. Pts.		Cont. Pts.
VK5WO	368 1038	5TM	65 175
5PT	231 945	5NKK	78 174
5MG	271 764	5KY	46 168
5KK	239 671	5WH	44 149
5XMI	234 569	5LC	54 144
5XY	213 541	5KC	45 139
5EM	173 512	5PS	22 90
5JC	187 463	5SS	44 89
5CM	187 408	5JO	25 83
5EP	122 399	5XU	30 70
5UA	146 385	5UF	23 57
5AO	156 353	5JM	13 56
5XV	129 303	5KA	9 44
5MS	78 301	5EQ	7 35
5OK	91 301	5CJ	25 33
5QW	90 296	5RI	20 29
5IM	100 272	5PM	13 27
5AX	99 272	5CO	9 24
5HW	90 267	5WI	15 19
5OC	100 262	5XJ	14 18
5RR	87 251	5DO	10 11
5BG	50 246	5XL	5 6
5DF	74 163		

Open—

VK5WO	344 1085	VK5HM	50 114
3LQ	127 415	5FY	35 104
5BU	110 402	5UG	41 85
5KU	51 129	5TW	27 52
5FM	30 115		

C.W.—

VK5KK	117 361	VK5BP	42 123
5MY	104 319	5RK	29 87
5BS	100 305	5DS	28 67
5TL	59 169		

WESTERN AUSTRALIA

Top Six Logs—

	VK6RU	Points
6CL	1072	1072
6KW	843	843
6SM	823	823
6WD	784	784
6BE	653	653

Phone—

	Cont. Pts.		Cont. Pts.
VK6CL	353 921	6RH	23 62
6KW	214 843	6WI	21 58
6WD	281 784	6TR	20 51
6DX	237 651	6FW	15 48
6LG	169 445	6WT	10 30
6EW	122 342	6NF	15 44
6AD	123 341	6TL	14 41
6WL	121 317	6VT	12 38
6RI	106 301	6AP	14 38
6XO	85 240	6KE	11 35
6ZZ	81 237	6FB	10 31
6XZ	80 237	6LL	13 31
6BU	81 226	6MO	10 30
6PR	78 204	6TY	14 29
6XR	71 199	6HK	13 28
6CS	78 194	6GM	10 28
6CP	70 184	6LS	11 28
6CC	67 178	6VM	8 26
6GB	61 168	6AL	10 25
6AG	71 158	6WM	8 23
6JG	59 151	6EF	7 21
6MM	53 139	6MB	7 21
6TK	50 137	6HS	8 21
6LM	48 130	6TX	7 20
6CC	50 127	6FM	7 19
6OR	46 122	6HR	8 19
6OW	37 110	6J	7 19
6TB	46 101	6SJ	8 18
6TH	33 97	6SR	7 15
6BO	32 93	6TP	7 15
6JH	31 88	6DT	7 15
6KJ	31 86	6BC	5 12
6BN	29 83		

Open—

VK6RU	400 1072	VK6GW	46 123
6SM	305 823	6JM	46 119
6BE	244 653	6WU	12 32

C.W.—

VK6VJ	80 168	VK6MK	12 40
6AJ	26 80	6EF	14 38
6BA	16 50	6BS	10 31
6TH	17 80	6WH	13 31
6WW	13 50	6DF	6 22
6WQ	19 48	6RP	6 16
6UP	14 45	6GP	5 13

TASMANIA

Top Six Logs—

	VKTRX	Points
7KA	771	806
7AI	726	726
7AB	669	669
7RI	649	649
7SF	611	611

Phone—

	Cont. Pts.		Cont. Pts.
VKTRX	317 806	7AI	274 726
7AI	264 669	7AK	229 649
7RI	238 611	7SP	238 611
7PM	214 557	7WA	174 491
7TT	151 327	7DW	112 319
7MX	134 306	7XU	117 294
7JO	77 241	7CJ	46 210
7BT	100 182	7TB	93 164
7FH	88 151	7CT	49 122
7AX	27 82	7TL	60 81
7TL	33 68	7MZ	41 66
7MF	33 66	7PM	32 59
7KC	14 63	7MY	23 59
7CA	13 55	7RM	30 51
7PF	20 48	7DR	9 43
7UG	41 37	7XU	21 40
7PJ	19 37	7MH	19 34
7TS	11 32	7AL	18 31
7CP	18 28	7TL	16 20
7LR	17 19	7TE	12 19
7JP	14 18	7JF	6 16
7DZ	6 16	7SF	7 15
7TA	7 12	7WI	7 12
7DK	7 11	7CA	6 9
7JR	6 9	7SR	8 8
7JR	7 7		

Open—

VK7KA	250 771	VK7JB	67 174
7YY	202 534	7YL	55 115
7SM	176 403	7TY	21 48
7OM	81 203	7GB	18 28
7MZ	100 202	7NC	7 24

C.W.—

VK7CH	141 388	VK7DS	35 89
7LJ	130 373	7RK	16 43
7KS	58 150	7AG	14 26
7ZZ	64 141	7RT	7 18

PAPUA/NEW GUINEA

Open—

VK9RO	354 1082	VK9XK	295 971
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C.W.—

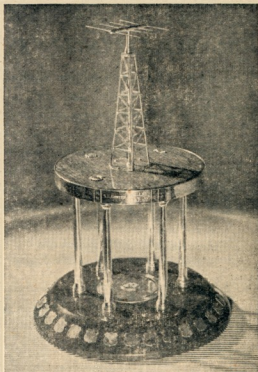
VK9AU	48 121
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RECEIVING SECTION

New South Wales—

New South Wales		Points
WIA-L2022	D. Grantley	770
L2052	T. I. Mills	755
L2064	A. T. Mullen	609
L2033	D. W. Shepherd	551
	R. Thompson	539
L2057	R. Wood	475
	R. L. McHugh	468
L2074	B. P. Carroll	451
L2001	B. J. Smyth	421
L2024	N. L. Dash	399
	P. J. Vernon	389
	P. J. Carter	300
L2014	K. Dunham	294
L2069	D. Richardson	263
L2047	S. Nelson	187
L2096	J. E. Douglas	173
L2020	D. C. Hayes	110
L2120	J. M. Clode	104
	R. Bent	64
L2079	P. Miles	56

REMEMBRANCE DAY TROPHY



The Remembrance Day Trophy is held by the Tasmanian Division of the W.I.A. for 12 months.

Victoria—

WIA-L3051	B. R. Wilson	936
	P. A. Barclay	778
L3055	M. R. Cox	662
L3063	I. D. Thomas	323
BERS193	E. W. Treblecock	274
	M. Cadzow	260
	J. M. Hilliard	247
	F. Seaber	200
WIA-L3039	D. H. Jenkin	152

South Australia—

WIA-L5015	G. H. Herden	1184
	W. J. Clayton	671
L5008	R. J. Simmonds	648
L5031	C. M. Hutcheson	610
L5020	P. W. Aslin	598
	Miss O. J. Martin	556
	K. T. Minchin	67

Western Australia—

WIA-L6003	F. H. Price	711
	L. W. Cloud	71

Tasmania—

	R. H. de Balfour	1051
	M. Jenner	407
	G. C. D'Emden	137
	G. Ranft	81

Papua/New Guinea—

WIA-L8004	G. A. Greville	144
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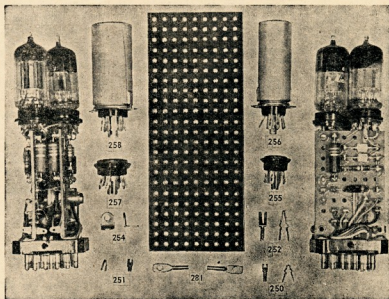
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A CONFERENCE OF COMPROMISE

IN GENEVA, 1959

One of the most fascinating things about this conference has been to observe the way in which it has worked. In many ways it is unique, not only because of its enormous complexity and size, but because its chief aim is to make everyone happy by producing a result in which everybody's wants are satisfied, and every little requirement which can't be talked away must be met.

IN most conferences, the participants expect to lose out on quite major matters which others will dispute, and are prepared to accept a vote on some basis or another should it be called upon to decide an issue.

But at I.T.U. a vote is one thing everybody tries to avoid. All kinds of conference devices, postponements and compromises are exploited should the possibility arise. Often matters just can't be simplified enough to produce a proposition on which a vote can be taken. Very rarely does any chairman decide to call for it, certainly in the smaller working groups, for these groups are specifically set up to provide an answer which will make it unnecessary to vote.

Naturally there is provision made for voting on the highest conference level which is the Plenary session, and sometimes, when a complete deadlock is reached on a clear issue, it must be taken.

There is even a procedure set down for a secret ballot if five or more countries ask for it.

This has happened more than once in a Plenary session over a dispute such as whether Communist China should be admitted or recognised by the I.T.U. Obviously that was a point which had to be decided one way or another, but few matters break down to such a simple proposition.

The principle is clearest in the evolution of the frequency table which is the most important subject from my point of view. Even here there are one or two matters which show every sign of reaching a deadlock, and might make voting necessary. But a great deal of work will have gone on beforehand in an endeavour to avoid this, and it is highly likely that such matters, now in committee, will be pursued all the way to a Plenary session before the final showdown.

The reason for this reluctance to vote at the conference is not hard to find. This is essentially a conference of sovereign nations who, by general agreement, are meeting as members of the I.T.U., which they have joined by voluntary application because they realise that the ether must be administered by common agreement for the common good.

Such agreements are honoured merely because the accredited representatives sign the final document on behalf of their Governments, thus indicating that they will abide by its provisions, a fact which amply justifies the existence of the Credentials Committee which examines the right of all representatives to sign.

But there can be no compulsion involved. If, as time goes on, a member country finds that it is having difficulty in keeping its contract, no one can stop it from breaking the agreement if it decides to do so.

The I.T.U. has not, and cannot have, any means by which it can over-ride the sovereign rights of its members to ignore their obligations if they so choose.

Violations of the Atlantic City agreement have taken place by some countries operating h.f. broadcasting stations in exclusive Amateur bands in recent years, as we all know to our sorrow. Faced with their need to set



JOHN MOYLE, VK2JU
W.I.A. Representative at Geneva.

up stations, and being unable to obtain suitable channels in the official and over-crowded lists kept by the International Frequency Registration Board, the I.T.U. agency for this purpose, some have set up other types of stations out of band, and the vulnerable Amateur frequencies, particularly at 7 and 14 Mc., have been among the sufferers.

Behind every decision to alter the table, or to prohibit certain services from operating in a given band, there is always involved a problem of convenience and finance. Changes are inevitable with time, but it is of no use to make decisions which require exist-

ing services to change frequencies forthwith, for instance, with no consideration for the practicability of such a move.

Even if there is only one country concerned, with big investments in equipment, or without resources to commence a replacement programme, it would be useless to demand that it follow the decision of an arbitrary vote.

Multiply this simple example hundreds of times and you have the reason why this is a conference of compromise. There are nearly always some exceptions which have to be made to the rule.

From the view-point of the frequency table, therefore, every effort must be made to write the general requirements of the world into a classified form which is the table itself, and then to annotate it with all kinds of footnotes which say which countries are exempt from its provisions, or which are permitted to modify or to add to them.

And always this process involves careful consideration to avoid interference with those services which legitimately operate within the confines of the table, or of other footnotes thereto. Yes, it can become most complicated, and as a result takes months of effort, during which everybody is on the alert.

At the beginning of the conference the desirability of limiting these footnotes, and of wording them in such a way that they can be easily understood, was recognised by detailing a special committee to study and advise on the subject.

But as the conference progressed it became clear that we will end up with more footnotes than ever.

Even today, a report came into committee from a working group with 16 footnotes attached to one section of the table, and had to go back to the group for reconsideration on exactly the lines I describe here.

I have even observed a case where there were so many footnotes that the table itself was re-written to accommodate them, and the material in the table became eventually the subject of the footnotes!

One device used to ease the position is, of course, the division of the world up into three Regions. It would be an ideal solution to have every section of the table agreed to on a world-wide basis. Some bands because of their wide propagation characteristics can only be determined in this way, as, for instance, the 14 and 28 Mc. Amateur bands.

But there are others in which it is practical to allocate requirements on more localised geographical divisions such as Europe, Asia and Oceania, and North and South America, a very rough kind of approximation of the three Regions. Broadly speaking their needs can be grouped, although there are quite a few anomalies to be found in this imperfect arrangement.

Without the Regions, the footnote position would become even more confusing than it is today.

It is probably true to say that many footnotes come into existence as the result of second and third thoughts on the part of some countries.

(Continued on Page 16)

A CONFERENCE OF COMPROMISE

(Continued from Page 15)

When the conference began there were two big volumes of nicely printed proposals which purported to be the agenda. But because there were many who had not sent in proposals, it was obvious that there were more to come. There were.

AMENDMENTS TO PROPOSALS

On the first day delegates were presented with a pile of amendments as big as one of the original volumes. Since then so many more proposals have been received, many of them emerging from the course of events, that as far as the tables are concerned the original volumes are almost useless, and it has been necessary to publish the entire set of proposals in grouped and indexed form on roneoed sheets for the convenience of the working groups.

When tackling his section of the spectrum, the chairman of each working group or sub-working group first attempts to classify all those proposals which seem to indicate a certain trend, and to commence discussions on the remainder to see whether some can be withdrawn, combined, or otherwise fitted into a plan.

In the course of events, some countries, seeing that a concession is likely to be granted to another in the form of a footnote, decide that they too would like to be included in it. Before one can turn a hair, what was initially a small item has blown up into a big one, and we start all over again!

This has happened many times, when an apparently minor suggestion involving an Amateur band has suddenly gained support and expanded into a major threat about which drastic action has to be organised.

These are the occasions upon which the presence of many Amateur-minded people at the conference has been invaluable, for some of the attacks which have developed can only be described as vicious on the part of one or two countries, who have no love for Amateurs if their delegates are to be believed.

The menace of the footnote has caused me as much worry and headache as many straight proposals which can be met in the open and thrashed out for better or for worse. Even as I write, there are three or four which we are all watching very carefully in case they should get out of hand.

The same thing can, of course, be said of many proposals, particularly the lone proposal. Sometimes it is so removed from the general picture that the innocent could be pardoned for ignoring it as likely to be voted out. After he discovers that voting out is a last resort, he wakes up to the fact that many countries who rather lean towards the lone proposal's provisions are quite happy to leave it there to see what happens, jumping joyfully and rapidly on the bandwagon at the appropriate moment so that the lone proposal suddenly finds itself surrounded by friends.

When that happens there is a real scurry, other countries reserve their positions right and left, and usually the matter is held over until the next meet-

TECHNICAL TOPICS

ANTENNAE FOR FIELD DAY OR PORTABLE OPERATION

THE first requirements of an antenna for portable work are: (1) That it should be easy to transport and erect, and (2) That it should efficiently radiate the limited power available from portable transmitters.

The first type of antenna which comes to mind for portable work is the whip type as used in various Army transmitters, but, while this type meets requirement (1) perfectly, it is not an efficient radiator unless its length approaches a quarter wave, which makes it an impossible size on 7 Mc. and 3.5 Mc. For mobile work, the whip is the only practical antenna and it is possible to considerably improve its efficiency by centre loading with high Q coils, but even so, it is still much less effective than a half wave antenna.

If for increased efficiency, we decide to use a half or quarter wave wire, then supports are needed and these can be found in trees. It will be necessary to select a site for field day operation which as well as good propagation characteristics, has suitable trees spaced the right distance for the bands to be used. In erecting the wires, it is not necessary to climb the trees but proceed as follows:

Use a fishing line of length more than twice the height of the tree and tie a weight such as a large nut on one end. Swing this weight around like a sling shot or fisherman casting and let it go over the top of the tree. This requires a little practice.

If the line is checked before the weight reaches the ground, it will swing like a pendulum, wrap itself round a high bough and take no further part

ing, by which time some heart-to-heart talks take place among all concerned.

The man who thinks his special propositions are completely safe at this conference, particularly where there has been some difference of opinion and an uneasy truce, can never be certain when the whole thing is likely to blow up again in his face, with a totally unexpected result.

And it can happen right up to the moment when the final articles are signed.

For, as I said at the start, this is a conference of compromise as far as frequency allocations are concerned, in which everybody's voice has a right to be heard, and in which every nation has an equal standing and can demand that its wants be met.

The art is to do it without ending up with a table which means nothing at all.

The danger that exactly this will happen is well recognised, and at this moment a special study group is examining certain sections of the spectrum in the hope of future planning to restore some kind of long term order.

Because if this is not done, the policy of compromise will lead to complete chaos, which many consider isn't very far away.

in the operation, so it is best to have a spare weight and line available. When the line is across the tree, the aerial can be tied to one end and the line used as a halyard.

An alternative method to the sling is to use a bow and arrow but in any case don't let the weight or the arrow fall back on your head or your car.

Suitable types of wire antennae are:

(1) **The folded dipole.** This is one of the most efficient half wave radiators. It can be coupled direct to the tank coil link and does not require an aerial tuning unit. If made of 300 ohm ribbon throughout, it is easy to handle and does not tangle like wire. It has the disadvantage of being strictly a one-band antenna and it would be expensive to have a 300 ohm ribbon folded dipole for each band.

(2) **The vertical quarter wave.** The length is approximately 66 feet for 3.5 Mc., 33 feet for 7 Mc., and 16 feet for 14 Mc. This antenna requires a good ground and for portable operation in open spaces it is probably easier to provide a quarter wave radiator and make it a ground plane antenna which concentrates the signal into low angles. The vertical radiator could be hauled up to an overhanging tree and the four radials run out at a small downward angle with long extension cords and tied to pegs in the ground or other trees. With downward radials a 50 ohm feeder would be an approximate match and in any case would be very short.

(3) **The all-band antenna.**—130 feet centre fed with 66 ft. open wire tuned feeders. This requires an aerial tuning unit which is an additional piece of gear to set up. The feeders and the spacers can get into tangles and be awkward to sort out. Once up, however, this antenna allows band changing without alteration to the antenna.

(4) **The all-band antenna with dipoles cut for each band and all fed by the same 70 ohm feeder.** This would be very good for quick band changing but unless the dipoles are made of insulated wire, it might be difficult to keep them separated in antenna required for quick erection.

If the antenna is required for Field Day operation and the Contest is held in daylight only, as in recent years, then probably operation would be most profitable in two bands—7 and 14 Mc. For these two bands it is suggested that two antennae be used, the choice being the folded dipole for 7 Mc. and the ground plane for 14 Mc.

If the Contest is for run for 24 hours, then an additional antenna for 3.5 Mc. or an all-band antenna would be required.

—J.A.G.

RESULTS OF VK9 3.5 Mc. CONTEST

The 3.5 Mc. Contest conducted by the Papua/New Guinea Division of the W.I.A. during July was won by VK9KK with VK9RO filling second place.

Despite periods of very high noise level, contacts were obtained with U.S.A. and Japan, and many VK and ZL stations took the opportunity of gaining a contact with VK9 on this band.

The Division wishes to thank all those who participated and helped make the Contest a success.

An Economical Receiver for S.W. Listening

D. M. GRANTLEY,* WIA-12022

SINCE publication of my article on Short Wave Listening in "Amateur Radio" of April 1959, I have had quite a number of letters seeking information on the conversion of the Number 19 Receiver. In view of this, here is the information as already supplied to the chaps who enquired from me, hoping that it may be of interest to some of the other s.w.l's.

Let me point out at this stage that the original receiver which I used for many months was not converted by myself, but by VK2RS. The v.h.f. communicator and main transmitter in this case were removed, and I built a power supply in its place. But there is a far easier way to get this remarkable receiver working, and it does not involve the removal of any part of the transmitter, thus enabling the listener to have his first rig when he gets his ticket.

There are two plugs on the front panel of the set; one is a 6-pin, the other a 12-pin. The output is taken from pin 4 of the 12-pin plug and the

* "Spring Valley," Holbrook, N.S.W.

other connections we worry about are on the 6-pin. Pin 4 is the 500v. point, and pin 6 is the 275v. point. (I use only one supply of about 300v.)

The only other task remaining is to alter the filament wiring from 12v. to 6v., and like most things there is an easy way of doing it. Simply locate an easily accessible valve socket (and you will find that the 807, being lower than the rest, and more or less in the clear, is the logical choice), earth the filament pin which is connected to the 12v. supply and connect the 6v. lead to the other filament pin. This being completed, you should have 6v. on all the filaments; if not, a quick inspection of the filament circuit will no doubt enable one to locate the fault and rectify it. I have converted several by this method, and it seems to do the trick successfully. Pin 3 on the 6-pin plug is the supply point for the 1.4-.

Having completed these few adjustments, all that remains to do is to fire the gear up and unless there is something radically wrong, it will go.

If it is decided to remove the transmitter from the transceiver, there will

then be plenty of room to build a power supply and thus have a self-contained unit. Any conventional supply delivering 6v. l.t. and about 300v. h.t. will suffice.

Two adjectives, "remarkable" and "inexpensive" have been used in the course of this article, the latter cannot be disputed, as a perusal of the various dealers' advertisements reveal an average price of less than £5, which in view of the little work to be done on it, is most reasonable. For its size and age, it is a most remarkable little set. I have had considerable success with it, both on its own range and with a converter for the higher frequencies. There is plenty of power at the output and although designed for headphone operation, it operates a speaker at good strength.

A certain measure of bandspread can be given by removing all moving plates except one in each section of the gang, and soldering a 50 pf silver mica capacitor across each of the four trimmers beneath the chassis on the I.f. band. I have not tried it, as my converter has full bandspread on all bands, but according to G3IDM in the R.S.G.B. "Bulletin," Feb. '59, it gives a spread on 80 metres to over three-quarters of the dial, and extending 40 metres to over half an inch—which is over three times the coverage in the original form.

Care is needed in the selection of the actual machine, as some of them are heavily tropic-proofed, and it is advisable to inspect the "works" of the set before purchasing. It may be just a co-incidence, but of the ones I have worked on, the ones in good clean condition were the ones which have the various controls labelled in Russian. Circuits are included in some of the cases, but in case they are not, one can be obtained for a nominal charge through the VK2 Division.

Now go to it you s.w.l's, and if you cannot win an R.D. Contest on this gear, then you want to give the game away.

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ANNOUNCEMENTS

N.S.W. Divisional Convention will be held on 30th January, 1960, at VK2WL Quarry Road, Dural. Good prizes, 2 m.t. blindfold te. hunt, excellent entertainment, and some disposals gear are some of the features. A real get-together for all at reasonable cost. Full details in your Bulletin and Broadcasts, so join us at Dural for another enjoyable Convention.

Victorian Zones and Clubs.—Secretaries of zones and affiliated clubs are reminded of the trophy, presented by the Victorian Divisional Council of the W.I.A. for the best score returned by a zone or club in the National Field Day Contest. Further details will be found in the Victorian notes in this issue.

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ROSS HULL MEMORIAL V.H.F. CONTEST 1959-60

The Federal Contest Committee of the Wireless Institute of Australia invites all Australian and Overseas Amateurs and Short Wave Listeners to participate in this annual contest which is held to perpetuate the memory of the late Ross Hull whose interest in v.h.f. did much to advance the art.

A handsome Perpetual Trophy is awarded annually for competition between members of the W.I.A. in Australia and its Territories, inscribed with the name and life work of the man whom it honours. The name of the winning member of the W.I.A. each year is also inscribed on the Trophy. In addition, this member will receive a suitably inscribed, framed photograph of the Trophy.

Objects: Amateurs in each call area (this includes those in Australian Mandated Territories and Antarctica) will endeavour to contact Amateurs in all other call areas and overseas. (VK1 and VK2 will be considered to be one call area.)

Date of Contest: 1st December, 1959, to 31st January 1960.

Duration: From 0001 hours E.A.S.T. 1st Dec., 1959, to 2359 hours E.A.S.T. 31st Jan., 1960.

RULES

1. There shall be three main sections to the contest:

- (a) Transmitting phone.
- (b) Transmitting open.
- (c) Receiving phone and c.w.

2. All Australian and Overseas Amateurs may enter for the Contest whether their stations are fixed, portable or mobile.

3. All Amateur v.h.f. bands may be used, but no cross-band operating is permitted, with the exception that 50-54 Mc. and 56-60 Mc. will be considered to be the same v.h.f. band for overseas contacts.

4. Amateurs may enter for one of the above sections listed in Rule 1. An "open" log will be one containing both phone and c.w. contacts.

5. Only one contact per station per band is allowed each calendar day and arranging schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

7. Entrants must operate within the terms of their licenses.

8. Cyphers: Before points may be claimed for a contact serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telemetry) or RST (c.w.) report plus three figures

which may begin with any number between 001 and 100 for the first contact and which will increase in value by one for each successive contact, e.g. if the number chosen for the first contact is 053, then for the second contact the number will be 054, for the third 055, and so on. If any contestant reaches 999 he will start again with 001.

9. **Entries:** Entries must be set out as shown in the example, using only one side of the paper. Entries must be postmarked not later than Saturday, 1st March, 1960, and addressed to the **Federal Contest Committee, W.I.A., Box 371B, G.P.O., Hobart, Tasmania.**

10. **Scoring:** Scoring will be based on the table shown herewith.

11. **Logs:** All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name.....Section.....
Address.....Call Sign.....

Claimed Score.....

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the contest.

Signed.....
Date.....

12. The right is reserved to disqualify any entrant who, during the Contest, has not observed regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No dispute will be entered into.

SCORING TABLE

	To												Overseas other than ZL
	VK1 VK2	VK3	VK4	VK5	VK6	VK7	N.T.	VK9	ZL1	ZL2	ZL3	ZL4	
VK1-VK2	-	5	4	2	10	4	6	10	7	7	7	7	10
VK3	5	-	4	4	9	10	6	10	7	7	7	7	10
VK4	4	4	-	5	10	7	3	7	7	8	8	8	10
VK5	2	4	5	-	7	5	3	10	8	8	8	8	10
VK6	10	9	10	7	-	10	10	10	10	10	10	10	10
VK7	4	10	7	5	10	-	7	10	7	7	7	7	10
N.T.	6	6	3	3	10	7	-	3	10	10	10	10	10
VK9	10	10	7	10	10	10	3	-	10	10	10	10	10
ZL1	7	7	7	8	10	7	10	10	-	-	-	-	-
ZL2	7	7	8	8	10	7	10	10	-	-	-	-	-
ZL3	7	7	8	8	10	7	10	10	-	-	-	-	-
ZL4	7	7	8	8	10	7	10	10	-	-	-	-	-
Overseas other than ZL	10	10	10	10	10	10	10	10	-	-	-	-	-

The score for the first contact with any particular call area on each band will be that shown in the above table. For each subsequent contact with the same call area on the same band the score will reduce by one point until the contact value reaches 1, when all further contacts with that call area on that band will retain this value.

In addition a bonus of 20 points may be claimed for each new call area worked on each band.

EXAMPLE OF TRANSMITTING LOG

Date/Time E.A.S.T.	Band	Emission	Call Sign	RST/NR. Sent	RST/NR. Rcvd.	Call Area Bonus	Points Claim.	Blank

EXAMPLE OF RECEIVING LOG

Date/Time E.A.S.T.	Band	Call Sign Heard	RST/NR. Sent	Station Called	Call Area Bonus	Points Claim.	Blank

NOTE.—The standard W.I.A. Log Sheet follows the above form.

NOTE.—The standard W.I.A. Log Sheet follows the above form.

S.W.L.

Maurice Cox, WIA-L3055
Flat 1, 37 Boyd Crescent,
Olympic Village, Heidelberg,
N.23, Victoria.

Hi fellow short wave listeners. How are you receiving these days? Are the bands improving? I would like to hear from any of you chaps now about it.

Now to the news of this month. Had a letter from Ian Thomas, L3065. He says: "Over the week-end while I was listening in on the 'CQ' world-wide DX contest a thought occurred to me (well how about that, hi). Why not use this contest as the means of a contest amongst short wave listeners in this country. As you are probably aware, there is no receiving section in this contest. I feel this may be a way of helping to stimulate interest in s.w.'ing. They follow closely the format of the rules for the 1x section." Ian says that following the rules he would have scored 10,608 points. Thanks, Ian for the letter and we will go into the rules next meeting. Okay on your five new countries, keep up the listening. This is the only letter I have had this month. I haven't heard from VK3 for some months. They came in with a burst, but I haven't heard. How about it, VK6? Drop us a line or two.

Tim Mills L2052 and myself want to make s.w.'ing in this country very big, so come and join the gang. That goes to all the States who have inquired. If you want help, we will help you all we can.

VK3 GROUP NEWS

Our last meeting was held with the presence of seven members, but we had a good time. Mac Hilliard played us a tape recording of 50 to 70 W nights heard by VK3. The list included Salisbury, South Rhodesia. They consisted of 1.v. and some Amateur s.d.s. from Europe. Then he played a tape of the JA opening last year. Thanks very much Mac, most interesting.

Very shortly I hope to send to all VK3 members a list of donations and lectures of interest for the next 12 months.

We have been given approval to send to High and Technical School Headmasters a letter to try and gain more young members for the Group. They will be forwarded shortly. Also a letter will be forwarded to all the associate members in VK3, so chaps, look forward to bigger membership with more and more events.

Now some notes from Don Grantley, L2922.

QSL LADDER

This is the first QSL for our new innovation, and owing to the limited time for preparation, he requests that very little is to hand for our first issue.

For new contributors, if you want to be in future lists, please send your scores to D. Grantley, Holbrook, N.S.W., or to Maurice Cox by the 17th of the month. Scores wanted are countries heard, confirmed, zones confirmed. These scores being your all-time results, not the ones pertaining to the present year.

Name	Confirmed	Heard	Countries	Zones
Eric Trebilcock	...	259	247	40
Don Grantley	...	140	148	25
Mac Hilliard	...	132	148	25
Maurice Cox	...	181	18	
Ian Thomas	...	73	12	

ALBURY RADIO CLUB

Look for some s.w.l. activity amongst the associate members in the near future. Don Grantley has just said for the A.O.C.P. and has every reason to believe that he will be out of the s.w.l. ranks by the time this reaches you. However, there are several new members who are keen to be heard. Rod is one of the staff of a local newspaper. Rod is around the 19 mark, interested in radio only as a hobby, and is the newest member of the club.

Under the wing of L2022 for a couple of years now, Rod has become a good operator, and was one of the entrants in this year's R.D. VK. He has been asked to take over the undertaking the task of building himself an all band rx to further his listening.

CONTESTS

No contests this month, the next for the VK s.w.l.s. being the National Field Day in January. Not a large number of entries in the VK/ZL Contest, which is to be regretted. L2052 sends his apologies to the s.w.l.s. for his absence from the Contest, due to circumstances beyond his control.

[These are the rules Full Memorial Contest. See details elsewhere in this issue.—Editor.]

DX NEWS FOR S.W.L.s.

Any listeners awaiting cards from STEKO need not despair, they will get them late 1960 when he returns to G land.

VFEC3's outstanding s.w.l. report now being awaited.

FRITZD, G. Hoaray, Tampon, Reunion Is., and QAOAF, Box 195 Fernando Po., are two new QTHs of interest.

THE VILLAGE IDIOT

He is at it again, according to Monitor, the I.S.W.I. official magazine. This time calling himself M2EA, giving his QTH as La Luna, and transmits weird noises to prove it. He was up to his tricks on 80 metres, and apparently hails from over in the European sphere some place, as he was on 40m. He is a put him in the same category as the v.f.o. picker who repeatedly crosses SWI at broadcast time.

LOCAL PIRATE ACTIVITY

Some time ago we had a chap having fun and games using the call signs of 3AKN and 2AXN, the former call being held by Don Bouché at Broadwater, the latter has not been issued. This pirate was going great guns here a while ago, but he has gone to earth of late. Got a bit windy, maybe?

VK3 S.W. ZONE CONVENTION

Many of our s.w.l.s. from N.S.W. were to be seen over at Narranderra for this get-together on October 4. Tim Mills and 4H4 were seen in a huddle at one stage, whilst L2032, L2055, the Tumbarumba gang complete with the 2x100 and 2x200, others with Hay, Albury, and Griffith, were to the numbers. Past listeners in Ted 2ACD and Don 2RS were sighted.

Thanks very much, Don, for your contribution again.

VK3 GROUP NEWS

Our membership has passed No. 170, being about 135 numbers at the time.

One of our regular news suppliers, Barry L2020, has vanished from the meetings. How about a bit of news Barry?

An ex-member, Vol L2055, now has his full ticket of the 2x100. Vol has in fact over 12 months studied for the A.O.L.C.P. with our correspondence course. He spent three months on 2 x mix stations of 2200 and worked some 50 2 x mix stations. Now he is 40 with an AT5, running 136 watts. Rx is 115. Ant. a half wave and QTH Woolahra. Congrats Vol.

September Lecture. We went along to the v.h.f. meeting and heard two very good lectures by Bob 2ASZ on Command Rx's and by Alan 2BZ on the 2x100. Bob 2ASZ and Command Rx's. Our thanks to them for a very interesting evening.

Our November meeting will be dealing with the awards and we hope to see many as possible attending. We are disappointed with the roll up at the meetings, usually being about 10. Well, this winter's over, we hope Tim hopes that in the not too distant future things will improve.

Don't forget the December meeting. We will be attending the weekly auction of the 2x100 boys, so here is your chance to get something for the shack or the door stop.

Now the Amateur is progressive. He keeps his hand ahead of science. It built well and efficiently. His operating practice is clean and regular. This is one of the points of the Amateur Code and the same can be said for the s.w.l.s. The State membership is growing more and more.

Many thanks to all who did so much for the Group at Chatswood Town Hall in the Youth Festival. Thanks to have given us the information to this page, for after all, it is for your use and it is for you to say what you want. I have a letter from VK4; the interest in s.w.'ing is there and it is only a matter of time before they are in it.

Awards: This subject is now under way and if you look at July "A.R." page 25, you will note that F.I. has been given the award of recommending awards. This State has the task of formulating awards for the whole of VK. We have a letter from VK4 on the subject, so put pen to paper and send them in. Think it over and do the best for VK.

Distress Frequencies: Shipping c.w. on 500 Kc.; R/T on 2182 Kc.; survival craft 8384 Kc.; aircraft 6540 Kc., or on their designated route frequency. This frequency is listed as being used by Radio Moscow 1900w, and Thand 250 watts. If you want good code practice, try the weather reports on 500 Kc. at 10 v.p.m. 1100 and 2300 hours.

As usual, the s.w.l.s. are assigned to Australia are AXA-AXZ, VHA-VNZ, VZA-VZZ. Ragchew: Via the 600-ohm line, and other means.

On the v.h.f. field, the following has come to light: On 61 Mc. watch for ZL t.v. sound at 1830 AEST, for half an hour. On the 5th hour week-end, some of the Sydney v.h.f. boys have been heard on 144 Mc. DX on 2 m. 2W1 will give more details.

Dick L2031 dropped a line to let the boys know he is still on deck. At the moment he is on long service leave and is in VK4. Using a BC212, he has been raking in the DX. Ken L2030 in Shellharbour has been chasing the DX before the paper run in the mornings; thanks to his neighbour two doors away, in whose Norfolk Pine he has tied one end of his Wyndom. Hope you can get 2AKM on the bands and that you get the 20 m. quad v.p.m. 1100 and 2300 hours.

Roy L2068—get on to Barney L2001 re QSL'ing. Thanks Rodney L2072 for the DX news. Radio Japan's DX programme, fourth Saturday, is on 1835 A.S.T. on 1144 and 1535 Kc. in the VK/ZL transmission at 1230 to 2030 hours. Swiss Broadcasting Corporation 1535, 1185 and 955 Kc. at 1450 A.S.T. and 1450 A.S.T. and 1450 A.S.T. second transmission to the U.S.A. between 1415 and 1500 in DX corner. Thanks Rod.

Dick L2033 near Casino is using a home brew rx, five 100 v. battery powered, with a tube pre-selector switched 40 to 10. Aerial is 87 ft. end fed Zepp. I would like to welcome Afton Westcott to this Group. He comes from Woomers, South Australia, and is presently in WIA-L2136/VK4. Might be a Group in VK4 soon.

DX on the b.e. band, from Gerry L2011. Times for E.S.T. and A.S.T. are as follows: The first programme can be heard on JOAK 590 Kc., JOBK 670 Kc., JOIK 570 Kc., and JOFK 880 Kc. From midnight to closing down at 0100 hours, 590 Kc. and 670 Kc.

VOA on Ryukyu Islands, English on 1180 Kc., 0000-0300 hours. North Luzon, Manda, 1140 Kc., 0000-0300. North Luzon in English 1130-0200, close down. DZAQ, 630 Kc., 0115-0200, close down.

Philippines: D2BB Manila, 530 Kc., 0000-0200, close down. DZAQ, 630 Kc., 0115-0200, close down. Hawaii, PKGA, 630 Kc., sometimes 0130 to 0200 hours and the 15240 and 17840 Kc. fade out about 0230.

Voice of America Amateur Programme

Sunday 11:10-1135 hours: 15105, 15210, 11970, 11810, 11770, 9740, 8700, 9585, 9530 and 6140 Kc.

Sunday 1715-1730 hours: 17545, 15330, 15395, 15110, 11970, 9740, 8700, 9585, 9530 and 6140 Kc.

Sunday 2215-2230 hours: 22950, 25680, 21735, 21445, 17535, 17330, 11875, 11870, 11775, 9740, 9585, 9515, 7160, 1101, 6145, and 6140 Kc.

Monday 0315-0330 hours: 21610, 21500, 21455, 17740, 15210, 15200, 11875, 11870, 9615, 9585, 9515, 7160, 1101, 6145, and 6140 Kc.

Monday 0915-0930 hours: 25610, 21500, 17680, 17830, 17770, 15240, 15275, 15210, 15200, 15150, 11900, 11895, 11790 and 7160 Kc.

A special QSL card for this programme: Amateur Radio, Box 522, Washington 4, D.C., U.S.A.

Radio Sweden: New schedule for Far East from 2330 to 2345 hours, and to S.E. Asia from 0045 to 0200 hours and the 15240 and 17840 Kc. bands. Many thanks, Gerry. Good hunting.

Cards for the month include UA1KIR of the last Antarctic expedition. VKABD (s.w.l.), T25Q, who is JIACA in Tokyo, who wrote a long letter giving details in a very interesting and a Bright and Prosperous New Year. Tr. Maurice, L2053.



NOVEL METHOD TO RAISE FUNDS

An s.w.l. from U.S.A. forwarded a report and request for a QSL to George VK3ACOM. His printed form stated that the s.w.l. hoped it become a Ham very soon and that he raises rabbits to help pay for some of the gear he needs.

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Further Information: An information handbook on the Territory and its Public Service is available from Department of Territories, Canberra or Sydney, or from any Commonwealth Public Service Inspector, Commonwealth Employment Office or official country Post Office. Other enquiries to Department of Territories, Canberra (phone 70411, Ext. 28A).

APPLICATIONS

SUBMIT on prescribed form available from above offices.

TO—The Secretary, Department of Territories, Canberra, by 18th December, 1959.

PREDICTION CHART, DEC. '59

Mc.	E. AUSTRALIA — W. EUROPE S.R.	Mc.
0 2 4 6 8 10 12 14 16 18 20 22 24	GMT	
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7	---	7

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190 Thomas Street,
Hampton, Vic.

Maybe the notes did miss last month. My apologies to those who forwarded their time. The reason for lateness, the awaiting of further notes and a temporary breakdown of liaison between the printer and the v.h.f. Ed. The paucity of the notes this month reflects the normal late arrival. That is not a reflection on the Divisional scribes, but it is on the v.h.f. operator who leaves it to the scribes to dig up their own information. [Copy date will be strictly adhered to in future.

Highlights from the missing notes were the working of KH6 by 4HD and 4NG, and 5M2QDX breaking into a contact between GBE and 2ZBG, sigs. S9. This is Jim's second contact with VK6. This 5M2 fellow said that he is working into V56 on an average of three or four nights a week. He would have the theorist's idea of why the wave of propagation is using the E layer, but he is not based on it. What about it boys? geometric equation; the distance is 1,500 miles; there is no T.E. flutter. He also works DUU, and JA, but infrequently. He is on 50 Mc. every night at 0015 E.A.S.T. He also listens frequently towards VK around 1600 E.A.S.T. The last time that he had two break-throughs have been around this hour.

Then there was the smattering of JA DX and a couple of Es openings, VK4/3, VK3/7, Brian 5ZDW, of Darwin, has location troubles, but despite that and local QRM, has mixed it with JA. The arrival of 5ZEL in that area has increased the number of 50 Mc. stations by 100 per cent., so keep an eye in that direction in case the opportunity for W.A.S. comes along.

DX during October was relatively poor. JA signals not reaching great strength and not near as frequent as this time last year. Nov. got away to a good start, the third providing the best ever opening. VK3/JA from 1200 to 1730 all the way, sigs. booming in. Only a couple were worked by the Melb. gang represented by two operators on the air at the time, one of whom was successful.

A counterattraction when the band did open was the deciding of a well known Melb. event held the first Tuesday of each Nov. Maybe the other bands were a bit nervous. The band was called during the opening was VKZES and VK6, so other Divisions appeared to have their share. Es produced nothing that I know of. The band was called during the opening was VKZES and VK6, so other Divisions appeared to have their share. Es produced nothing that I know of. The band was called during the opening was VKZES and VK6, so other Divisions appeared to have their share. Es produced nothing that I know of.

To all the regular scribes and those others who have provided so many notes for this column throughout the year, my sincere thanks, and to all, those who write and those who read, the Season's Greetings, a Holy Christmas and a Successful New Year.

—Frank O'Dwyer, VK3OF.

50 MEGACYCLES

NEW SOUTH WALES

November 3, during what was apparently a general opening to JA, VK2ABR worked into JA4 and 9. Others of the gang were heard calling.

VICTORIA

50 Mc. activity has been at an average for local activity, but DX has been conspicuous by its absence. On a few occasions, odd signals have been heard, but nothing was achieved in the way of two-way contact. However, hopes are still high, receivers are working overtime with beams turned towards DX localities.

Some new calls active for the Interstate gang to look for are: John 3ZJE, Neal 3ZJN and John 3ZJA. Old timer 3ACL at Red Hill

made a brief return to the band and is expected to be heard again frequently. Keith ZGZD is off to the Antarctic in 1960. He will be stationed at Davis, operating under the call of VK0ED. 50 Mc. gear will be in his kit and he hopes for some use for it way down there. You must get a truck, Keith, while down there. You will have a lot of things firmly down there in those gales, otherwise you will be chasing it all over the place. He sails on Jan. 3 on the Magda Dan.

Bert ZGZD back on the band after some "technical" trouble. He is building mobile for 6 and 2 mhz and hopes to operate portable from Eden early next year, so look out the ZLA.

Of interest to the 50 Mc. gang. On Nov. 1 a viewer at Hamilton (western Vic.) reported that ABQ2 replaced the picture from ABV2 for periods during the afternoon. 3ZGP (Melb.) found the signal from ABV2 was noticeably interfered with while listening with an RF20 converter.

Nov. 3, JAs were heard and worked in Melb. between 1400 and 1500, while next day, 4, ZEW portable at Alexandra (N.E. of Melb.) heard a ZL during the afternoon. Nov. 5 more JAs were reported heard. Anyone know where a teletype station on approx. 54 Mc. heard often around Melb., is located? 3ZGP has heard this station around quite often during the time of break throughs, it was heard again over the three days just mentioned. -3ZGP

EXTENDED USE OF 50-54 Mc. BAND

PURSUANT to a request from the W.I.A. for the continued use of the band 50-54 Mc., the Postmaster-General's Department has authorised the use of the band until 31st December, 1960, conditional upon relinquishment thereof by Amateur station licensees before that date upon fourteen days' notice if the band is required by the Television Service.

QUEENSLAND

JA openings few and far between and very patchy. Best opening was on Oct. 16 from 1255 to 1425 with good strength sigs. JAs appeared to be around all the afternoon together with Scatter tx's and f.m. stations from Tokyo, also HLKA Korea. I got down to serious listening at 1900, going QRT at 2203. JA still in. 4ZBX worked 4ZAX. Dane 4ZAX was active also during the dinner hour. The Brisbane gang were represented during the evening session by 4ZAX and 4ZBZ. JA districts 0, 1, 2, 3, 6

On the 19th, JAI and S at lunch time, \$4/\$5 again at 1800-1930. 20th, JAI 2, and 4 from 1815 to 2034, to SS. 24th, HLKA peaking SS at 1315, but no JA. 25th, JAI, 6, 1, 2, 4, and 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, Heard no further DX until the 31st when JA3CE came up calling at 1230 and Mick 4ZAA worked him. 4ZBZ also was around. Thought that I heard signs from VK5 one time, but it was on the 31st. I wonder? Was it you, Hugh, 5 Beer Corks? Heard that Bob 4NG and Lance 4ZAZ were being mentioned in dispatches. Also heard that there was one 4ZKX who was a KJH for about 18Y months at 1242-83.

Welcome to 50 Mc., 4ZCH, at present up near IGY, QTH about 40 miles south-west of Brisbane. Running on battery power. Mick 4ZAA appears to have cleaned up his t.v.i. and is back on 50. Bill 4WD must have migrated, the JAs will think him a new call sign when he does re-appear. Arthur 4ZBA has a P & S mod. now so he may get out much better when Es start again, if it starts. 4ZBY has a 5 element on the job now I believe. Les 4ZZ has ideas of starting on 50 Mc., I hope so, Les

Never has Bruce 4BZ now, he has forgotten about 5 mx I think. Quite a bit of mobile activity up in the Brisbane area now. Alan 4ZBF talking about building a "2 water" for his new Minor by Xmas. Doug 4ZDL using hot 6V6 and quad. Max 4HD boxing up his 100TH now or is it the 3C/150A. Max?—4ZBH

WESTERN AUSTRALIA

Conditions, on the whole, have been quiet this last three or four weeks except for two exceptionally good openings when the band

was open into JA for at least six hours. The last of these was on Nov. 3 when apparently all States had JA DX. JAs could be heard calling VK5BC, VK5ZAX and many other stations.

At last I am sure I have a definite identification of that carrier "with hum on it" on 49.75 Mc. and with the other carriers alongside. I now have no doubt at all that it is a Russian Television Channel on their Channel 2. Enquiries I have made confirm the following points:

(a) A comparison with TVW7 on an a.m. rx proves it is t.v. The two sigs are identical. Remember, of course, that a comparison of that type has only been possible since TVW7 opened here in October!

(c) Beam direction is right—there are at least two t.v. stations in Siberia. The most distant (Novosibirsk) is about 20 degrees W of N. from Perth and about 6,000 miles away.

(d) 5,000,500 miles appears to be about normal skip here. Tokyo is about 5,000 miles JAS is 5,600 miles. The distance, then, is right. I have been unable to locate the second Siberian station, but I suspect it is near Vladivostok (a harmonic of a c.w. station located in Vladivostok has been heard here.)

Incidentally, checking through my log, I find I have logged the signal 54 times since March '58. That figure could be nearly doubled, however, since I have not logged the sig. when it has been present during a sizeable JA opening.

Local activity on 50 Mc. remains at quite a high level. Mobile activity is increasing, with Frank 6CC joining in. 6ZBY is still an active country station—the only active one within 100 per cent. contact of Perth (70 miles). 6WGB, 6ZBP, 6ZBM, 6ZAH and 6JG are all active on 50 Mc.—ERE.

144 MEGACYCLES

VICTORIA Two metre activity as heard from Ballara has been quite high during October and estimates made from log book entries indicate an increase of over 100 per cent. in the number of stations operating compared to a similar period last year. No outstanding DX has been worked, but a number of new comers and no so new comers in Melbourne have worked Ballarat stations for the first time.

An interesting contact was made when Roy Z3ER and yours truly contacted Syd 3CI in Nagambie on Nov. 1 and then again on Nov. 2 when Syd worked five stations in the Ballarat area: 3PO, 3SE, 3ZBS, 3ZER and 3ZEZ. The Ballarat-Nagambie path had previously been regarded as very difficult but the signal levels indicated that this is not so. A series of skeds have been arranged to prove this point.

S.s.b. has made its appearance on 144 Mc. in Ballarat. Brian 3ZBS put on a signal on 144.0 from a base exciter on Nov. 1. Much work remains to be done, however, and Brian does not expect to be working DX on s.s.b. for a while yet. 3ZEJ is still a few nights work behind with the s.s.b. exciter.

VK3/VK5 skeds are continuing each night at the new times announced over the VK3 W.I.A. broadcast during October. For anyone who has not yet started listening, the new times are: when VK3 calls, 1935 VK5 calls, 1940 VK3 calls, 1945 VK5 calls. The same schedule applies each and every night. The change was made because it was felt there was more likelihood of achieving contact with VK5 at this time and also because the earlier hours are more convenient to the more active participants at each end. There has been no positive response to the change by VK5. What about some VK2 and VK4 participation? The skeds may result in existing records being broken and even if nothing occurs, they do nothing but need a try which can do nothing but good.

QUEENSLAND.

Seems as if Ron 4ZBZ has acquired a 521 tx, have you a rx also, Ron? 4ZBI should have converter on by Xmas. Vic 4ZBT proposes 6AV6s, cascode final. Wonder if Bob 4NG got his converter on 2 mx during his holidays! —4ZBI.

WESTERN AUSTRALIA

Activity here is increasing with quite a few stations now operating. 6ZDS, 6BO, 6WG 6ZAV, 6ZBW, 6GB are all regulars. The daily 6BO/6WG sked and VK3ZEJ skeds still continue. One unidentified sig on about 144.1 was heard in VK6 during the 3ZEJ sked. It was not breakthrough and no local station operates there as far as we know.

Fox hunts are still held each month, commencing from King's Park. Much fun is had by all.

Continued on Page 24)

ADDRESSES

XZAD—P.O. Box 1290, Rangoon, Burma.
 ZDIPB—Army P.O., Freetown, Sierra Leone.
 HP1A—P.O. Box 354, Panama City, Republic of Panama.
 OAP—P.O. Box 233, Trujillo, Peru.
 ZBIBH—H. Biltcliffe, 19 flat, King's Road, London, E.14, England.
 RC2ASL—Ralerie, Box 83, Moscow.
 PJ3AA—C/o Government Radio Station, Arabia, N.W.I.
 HVICN—Via WZBIB (for current s.a.b. operation).
 FNBAD—P.O. Box 334, New Delhi, India.
 ZD3P—Trade, Buckley, C/o. Cane Winery Ltd., Bathurst, Gambia (P.O. Box 266).
 FR7ZA—Louis Ferrier, Boite Postale 320, St. Denis, Reunion Island.
 PXIEK—Via Z.2.
 PVBCV—Eric Ward, P.O. Box 182, Port Stanley, Falkland Island.
 PXIXU—is a pirate.
 AP2BP—Via GCMF.
 AP5B—Now G3HS.
 PK6CS—Mr. Cor Stoop, C/o. Fed. Tel. and Tel. Co., Dept. of Govt., Neth. N.G.
 TG9RO—Apartado Postal 283, Guatemala City, Guatemala.
 YA1AA—Via GCMF, 4044, Frankfurt, Germany.
 YN1CI—P.O. Box 569, Managua, Nicaragua.
 V5BOC and MP4TAF—QSL via R.S.G.B. (2QL and 12001).
 PJ2ME—P.O. Box 12, Blackwood, New Jersey, U.S.A. (2QL).
 Ex-VK0PK—Peter King, C/o. O.T.C., Port Moresby. (BERS195).

QSLs RECEIVED

2AMB: C1X1, KXBBB, BH5Y, MP4BBD, VP5EP, VU2IK, XW1AL, 30W, BVIA, FBXHX, CH1HL, HZ2LD, IT1AT, JT1YL, KV4BO, OK3KMS, UAKUV, UAJAN, UABOL, UCAAD, UO3PK, ULTKS, VU5B, VU5V, Z66L, 8M2PK, 9M2GE, 9Q1, GCFMVF, JZ0HA, LA2PE, P, T1W2D, T1WCW, VQ5EK, VQ5CF, V5SPM, XW-5AL, 2ZR: HK4GF, T1W, VQ2BI, ZC4RP, 193: CNBDJ, DU1OR, PK5AU, K6M1, OD5LX, UC2BG, VK9RO, VK0PK, VQ2EW, VQ4FO, VU5AB, XH1L, BVEV, JA5CT/MEM, 2A0J, DLAA, GCMF, VEEBXY, VESOL, VETZM, VK5AD, VV5AHE.

I wish to thank Don Chesser, W1KXV, for the copy of his DX magazine, via 1Q1. I am compiling these notes. 2AMB, thanks for the list Laurie, 90W, it is good to hear from you again Gordon, and pleased to know four in the list are new countries for you. 20K, your assistance is much appreciated, Frank. 8AOM, found DX pretty scarce from his location; partly due to excessive static and partly to the "Dewline" phenomena; on the other hand he has heard quite a deal of good DX being worked by other VKs who seemed to hear "em better than he could. [Suggests that he should be doing a good job on the 21 Mc. band, Hal. L2960, congratulations on your effort in the VK/ZL Contest, Barney, L5865, best luck with your exams. Ian, and getting those five new scores. 2AQJ: Bud says, "Time was taken up looking after broadcasts from Parliament House at Canberra." He has sent in some of his notes. 3YD: Your activities on the poor old 7 Mc. band should make some of the DX boys sit up and take notice. Your list of seventeen stations worked from Africa certainly brings this band to the fore. Reg was ZIG, at Albany, before the war and did the Southern Zone Notes. We're looking for your notes next month, Reg.

BERS-195: Eric heard 9G1BQ and LA5AD/P this month to bring his total up to 247 countries with 247 confirmed QSLs and 247 QSLs from 105 countries so far this year. Guess some must answer a.w.l. reports. IS9L/G-7196: Thanks for the first information received from England. Roger has a QSL of 117 countries in 38 Zones. He got up early one morning to try for Zone 30 and heard VK2OZ, ZR, ZL, and ZL. Best of luck to you in Zones 23 and 30. 5RK: Thanks Ray for the activities of yourself and 5HW. Hope 5WP will be active again soon and that he finds the new QTH to his liking. 4BD: Your notes and list were received a few hours too late, Max, but will be included in next month's issue. 73, cugan next month.

CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

AUSTRALIAN DXCC AWARD

C/o. Dept. of Inland Revenue,
 Johore Bahru, Johore,
 Federation of Malaysia.

Editor "A.R." Dear Sir,

Your Awards Manager's letter on the Australian DXCC Award, published in the June 1959 issue of your magazine is a most interesting expression of views, interesting from the point of view that it is very largely a case of "the kettle calling the pot black."

I cannot really appreciate the use of such references as "glaring idiosyncrasies" — "utter nonsense" — "sheer nonsense," etc. Such expressions, genuine or otherwise, are not in keeping with the so-called Ham spirit. Perhaps, on the other hand, the object of the letter was to cause friction between the W.I.A. and the A.R.R.L. As far as I am aware, the individuals concerned in the A.R.R.L. Awards section are only Radio Amateurs and not Professors of Geography.

With regard to some of VK3XU's statements, may I comment as follows:—

1. The Gold Coast was a Crown Colony prior to obtaining independence. This is not intended to suggest that I agree with the A.R.R.L. decision.]

2. Nine-elevenths of the Federation of Malaysia was a Protectorate prior to obtaining independence.

3. Singapore has only been granted partial self-government.

4. As far as Sarawak is concerned, I presume your writer is referring to some constitutional changes which took place during the 1945 when the Nipponese sailed back to the land of the "Rising Sun". As far as I can ascertain, there has been very little political development in Sarawak since then.

As one Ham Editor to another, why don't you use a blue pencil occasionally?

—S. A. Faulkner,

Hon. Secretary, M.A.R.T.S.

[As evidenced by the publication of your letter in full, I believe in the democratic right of an individual to express his opinion.—Editor.]

V.H.F. CENTURY AWARD

Editor "A.R." Dear Sir,

Scanning this month's F.F. Notes, while awaiting the commencement of my favourite t.v. programme, I noted that that erstwhile worthy project, the V.h.f. Century Award, has been mentioned publicly for the first time.

News of its inauguration was told to a v.h.f. meeting by a Federal Councillor late in 1952,

and a few of us who were interested resolved to try and collect the necessary 100 QSL cards. Several hundred hours later, having listened politely to long discourses on the weather, house painting, auntie's illness, the delinquency of the young, "bomb" troubles, bush picnics and photography, I found that I was flooded by the fundamental fact that the VK2 QSL rate barely exceeds 50 per cent. Seven years later, about 1957, when I had 23 prize stations worked, I don't possess 100 QSL cards—nor am I now deeply concerned that I ever will.

In 1953 my plea for the acceptance of a "letter of acknowledgment of contact" in lieu of a card, having failed to impress an apathetic V.h.f. Group and about 1954, when the State officer, was directed to F.E. I possess a thick file of correspondence with that body and was winning the one-man battle, until F.E. produced a fresh team of horses and I retired exhausted and disillusioned.

The problem of design and finance of the certificate could have been dealt with seven years ago, had the facts been made public. At that time I had access to an out-of-work artist, who would have been pleased to accept the contract for the price of a couple of meals. Pending the arrival of a suitable certificate, the enthusiasts should have been encouraged to go ahead and get their 100 contacts and have awarded a temporary acknowledgment for so doing.

Most of the v.h.f. pioneers have gone to 40 metres, to photography, or have just gone. To work 100 stations nowadays is no great achievement. For 2 metres you just set up gear in Melbourne or Sydney; for 6 metres you need a K1 and a W2AS.

The really fascinating pastime in v.h.f. is to try and get that elusive 6 metre W.A.S. award, it being entirely dependent upon the inclination of someone to go to N.T.

—H. A. F. Rote, VK2HE.


CONTEST RULES

Editor "A.R." Dear Sir,

I don't know what the Federal Contest Committee are doing, as up to now we don't know when the Ross Hull Contest is to be held and as they want as many as possible to take part in the Contest. If we knew earlier than this, as in other years, we can then arrange our holidays so we can take part, but this year we don't know when or the rules for the Contest. I don't know what the Contest Committee in July, but was told that it was too late to make alterations to the Contest. That was over four months ago. How long do they need to make rules and print them?

—A. W. Rushby, VK2ABR.

[Unfortunately, the Chairman of the Federal Contest Committee suffered a serious illness recently and another had to take over. New Zealand on business for two months. Under the circumstances, I think we can show a little Ham Spirit on this occasion and forgive the delay.—Editor.]



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VK4TC AT TOWNSVILLE INDUSTRIES FAIR

V H F
(Continued from Page 21)

On 17th, 18th, and 19th September the Townsville boys ran an Amateur Station under the call sign of VK4TC. As will be seen by the accompanying photograph it was well laid out and pleasing to the artistic eye of the President of the Townsville Amateur Radio Club, VK4PS.

Pride of place was given to the T.A.R.C. call sign, VK4TC. On the back wall were maps of all parts of the world in great detail, while in the centre foreground a map of the world sported flags of countries worked when the photograph was taken.

trical gadgets which were not suppressed. Never fear, chaps, all who were worked will receive a QSL card depicting the station, I hope, donated by VK4EJ.

The assistance given by people outside the club was greatly appreciated. While to the very few of the boys who did the yeoman work, I say "many thanks."

This is the first time we have organised an exhibition and the experience gained will be of great assistance for the future exhibitions.

—R. W. Wilson, VK4RW.

288 Mc.: 6EC still possesses his t.v. camera. Believe the tx works and signs have been sent out. 6FM is threatening to build a 150w. 283 Mc. tx using a 4X190A. Several chaps have xtal controlled gear on 288, but activity is low at present.

T.V.: Channel 7 appears to be giving pretty fair coverage and several VK6s are spending some time looking. Purely academic interest of course. 6ZBY is a regular "looker". 6ZBG 88U, 6GB, 6XD and 6CL all are interested.

At last! Our first case of t.v.i. Ron's (6FM) neighbour reports t.v.i. Doesn't appear to be serious, however. What will you do to Channel 2, Ron?—6BE.

A.T.V. AND T.V.I.

Len 3ZGP has been wrestling with some t.v.i., but appears to have cleaned the trouble up thanks to the help of Mac 3QO. He found one piece of trouble happening often and worth passing on. Those concentric air trimmers, 3/30 pf. variety. If you contemplate using these, make sure when installing that the ceramic pillar supporting the rotor area is not coated with aluminium rubbed off the sleeve of the rotor. Bet you bottles to nothing that your drive problems could be traced to this unit. Three recent events resulting in low drive and poor results were removed in one case by fitting a new unit, and others by fitting a normal trimmer capacitor. It is worth checking. The constant screwing in and out of the rotors steadily leaves a deposit of aluminium on the ceramic pillar. Wondered why I got a dead short across one earlier.

GENERAL NEWS

Victoria.—The October V.h.f. Group meeting was well attended and those present heard an interesting tape on t.v. from the British Amateur T.V. Group. General information on Amateur t.v. and a discussion on a simple scanner for reproducing images on a c.r.l. utilising a photo electric cell in a simple flying spot scanner. Further tapes are available on more advanced equipment which could be played for those interested. We were indebted to Charlie 3AAK for the tapes. The recent 6 mx scramble took place on Oct. 25 with some 22 stations participating. John 3ZFO took the honours in this event with 19 stations worked. Quite a successful evening.

Cheers for all in VK3. Christmas Greetings to all the v.h.f. gang in other States from all the v.h.f. gang in VK3, likewise from self.—3ZGP.



The station on the right was on 50 Mc., exhibited and manned by VK4ZBE. In the background were QSL cards of over 100 countries.

The table on the left had a very nice home-brew receiver, etc., built by VK4DD, together with books appertaining to Amateur Radio.

The next was a complete station of VK4PS and manned by various operators, and in the centre at the back was a table of various home-made equipment lent by the boys for this great occasion.

Unfortunately there is no photograph of the aerial systems used. These were as follows: VK4PS home-brew G4ZU on top of VK4BQ's new tower, 45 ft., also 4 element for 144 Mc. link with VK4MF and 30 ft. water pipe sported the 4 element yagi from VK4RW. A dipole was used on 7 Mc.

We were sorry to disappoint the 7 Mc. boys as we experienced very bad t.v.i. on the "closed" circuit t.v. run and demonstrated by A.W.A. Quite a number of contacts were made and a larger number not worked—although we were called—due to the extra high noise level from various stands in the proximity demonstrating elec-

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Fed. Assist. Secretary: W. Mitchell, VK3UM,
Box 2611W, G.P.O., Melbourne, C.I. Vic.

Federal Councils:

New South Wales—Bob Gossall, VK2ARG.
Victoria—Alan Elliott, VK3AEI.
Queensland—Arthur Walz, VK4AW.
South Australia—Rex Richards, VK3DO.
Western Australia—Ron Hugo, VK6KW.
Tasmania—E. J. Cruise, VK3IE.
Papua-New Guinea—Russ Coleston, VK3XK.

Fed. Contest Committee: Alex Hubbard, VK-7AX, Manager, Box 371B, Hobart, Tas.
QSL Bureau: R. E. Jones, VK3RJ, 23 Landale
Street, Box Hill, E.I.I. Vic.
Awards Manager: A. G. Weynton, VK3XU,
5 York Street, Bonheach, Vic.

NEW SOUTH WALES

President: Dave Duff, VK2EO.
Secretary: Norm Beard, VK2ALJ, Box 1734,
G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at
Science House, Gloucester Street, Sydney.
QSL Bureau: Box 1734, G.P.O., Sydney, Frank
Hine, VK2QL, Manager; assisted by Allan
Smith, VK3AIR.
Zone Correspondents: North Coast and Table-
lands: Noel Hanson, VK2AHH, Ryvan Ave.,
West Kempsey; Hunter Branch: R. W. Rose,
VK2ACW, 17 Brook St., West Wallsend;
Coastlands and Lakes: H. Hawkins, VK-
2YL, 9 Comfort Ave., Cessnock; Western: W.
Stitt, VK2WR, "Cambloway," Forbes;
South Coast & Southern: E. Fisher, VK2JY, 3 O'Leary
St., Warragunga; Sth. Western: J. W. S. Edge,
VK2AJQ, Wallace St., Coolamon; Tamworth:
S. Smith, VK2AP5, 50 Upper St., Tamworth.

VICTORIA

President: D. A. Wardlaw, VK3ADW.
Secretary: J. R. Lancaster, VK3JL.

FEDERAL

EXTENDED USE OF 50-54 Mc. BAND

Pursuant to a request from the W.I.A. for
the continued use of the band 50-54 Mc., the
Postmaster-General's Department has author-
ized the use of the band until 31 December
1960, conditional upon relinquishment thereof
by Amateur station licensees before that date
upon fourteen days' notice if the band is
required by the International Service.

AMENDMENTS TO FEDERAL CONSTITUTION

The undermentioned amendments to the
Federal Constitution have been agreed to and
are published for information of all concerned.

- Clause Amendment**
- That the word after "two" in the fifth
line, the word "fifths", be deleted.
 - That after the word "its" in the first line,
the word "financial" be deleted and the
word "fiscal" be inserted in lieu thereof.
 - That all after the word "additional" in the
second last line be deleted and the
following be inserted in lieu thereof:
"to any deliberative vote he may have
on behalf of his Division."
 - After the word "decisions" in the seventh
line, the words "within two months of
the conclusion of the Federal Convention" be
deleted.
 - That after the word "Divisions" in the
first line, the word "voting" be deleted
and all after the word "carried" in the
second line be deleted.

CONTEST CALENDAR

Compiled by W.I.A. Fed. Contest Com.

★

ROSS HULL MEMORIAL

V.H.F. CONTEST:

Date: 6001 hours E.A.S.T., 1st Dec., 1959,
to 2359 hours E.A.S.T., 31st Jan.,
1960.

Rules: Elsewhere this issue.

NATIONAL FIELD DAY:

Proposed Date: 1800 hours E.A.S.T. Sat-
urday, 13th Feb., '60, to 1800 hours
E.A.S.T., Sunday, 14th Feb., '60.

Rules: To be published next issue.

NOTES

Administrative Secretary: Mrs. May, 478 Victoria
Parade, East Melbourne, C.2, Postal
address: P.O. Box 36, East Melbourne, C.2.
Meeting Night: First Wednesday of each month
at the Radio School, Royal Melbourne Techni-
cal College.
QSL Bureau: Inwards and Outwards—W.I.A.,
Vic. Div., P.O. Box 36, East Melbourne, C.2.
Zone Correspondents: Western: W. J. Kinsella,
VK2AKW, Magdala, Lubeck; South Western:
W. Wines, 43 Cranley St., Warrnambool; North
Western: M. Folie, VK3GZ, 101 Lermon
Ave., Mildura; Midlands: R. Jonasson, VK-
3ND, Farnsworth St., Castlemaine; North
Eastern: T. K. Tennant, Park St., Tatura;
Eastern: W. G. Francis, VK3ZCG, 30 Windsor
Ave., Moe.

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President: John Pickles, VK4FP.
Secretary: W. J. Rafter, VK4PR, Box 63BJ,
G.P.O., Brisbane.
Meeting Night: Fourth Friday in each month at
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Divisional Sub-Editor: D. B. Hughes, VK4ZBD,
60 Mayne Rd., Bowen Hills, Brisbane.
QSL Bureau: Jack Fyles, VK4JF, Vanda St.,
Burranda.
Zone Correspondents: Maryborough: R. J.
Glassop, VK4BG, 80 Wilson St., Maryborough;
Townsville: R. K. Norton, VK4RW, Hogan
St., Stuart, Townsville.

SOUTH AUSTRALIA

President: B. W. Austin, VK3CA.
Secretary: J. C. Haseldine, VK3JC, Box 1234K,
G.P.O., Adelaide. Telephone: M 7851.
Meeting Night: Second Tuesday of each month
at 17 Wymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK3PS,
10 Victoria Ave., Rose Park, S.A.
QSL Bureau: G. Luxton, VK3RX, 27 Belair Rd.,
West Mitcham, S.A. (Inwards & Outwards).

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President: L. Roeger, VK6HR.
Secretary: L. S. Eddington, VK6LS, Box N1002,
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Meeting Night: Third Tuesday of month at
Perth Tech. College Annex, Mounts Bay Rd.
Divisional Sub-Editor: C. E. J. Sangster, VK6CS,
Windsor Hotel, South Perth.
QSL Bureau: Jim Rumbia, VK6RU, Box F318,
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TASMANIA

President: Mr. L. R. Jensen, VK7LJ.
Secretary: K. E. Millin, VK7KA, Box 371B,
G.P.O., Hobart.
Meeting Night: First Wednesday of each month
at W.I.A. Clubroom, 147 Liverpool St., Hobart.
Divisional Sub-Editor: I. Nichols, VK7ZZ, 9
Crescy St., New Town.
QSL Bureau: J. Batcher, VK7JB, 39 Willow-
dene Ave., Lower Sandy Bay, Hobart.
Zone Correspondents: North Western: Zone—
Terry Tong, VK7IT, Northern Zone—Ray
Waldon.

PAPUA-NEW GUINEA

President: D. Brown, VK9SB.
Secretary: Roy Taylor, VK9AU, P.O. Box 204,
Port Moresby.
Meeting Night: Last Wednesday in each month,
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QSL Bureau: C/o. P.O. Box 204, Port Moresby.

A. G. Milton, "Tabar," Pinnacle Rd., Grenfell.
D. J. Evans, Ambulance Station, Gundagai.
V. B. Maher, 43 Maitland St., West Wyalong.
R. J. Blankley, 667 New Canterbury Rd., Hurst-
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A. C. Madden, 517 Pacific Highway, Killara.
N. A. Michie, 19 Corona Ave., Roseville.
W. M. Sullivan, 45 Grantham St., Carlton.
S. E. Hancock, 15 Tedman Parade, Sylvania.
D. W. Morris, Flat 2, 11 Strone Ave., Wahroonga.
G. R. Arthur, 37 Dudley Street, Balgownie.
W. J. Hart (Dr.), 4/23 Mutton St., Moaman.
D. J. Woodman, 17 Brookman Ave., Moaman.
W. J. Melville, 54 Traversa St., Wagga Wagga.

Victoria

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B. S. Baugh, "Murrumbidgee," Hawkesdale.
J. D. Anwin, 3 May Street, Deepdene, E.8.
J. H. Baker, 1 Adam Street, Bentleigh.
V. B. Bradshaw, 31 Summerhill Rd., East
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N. L. Jenkins, 19 Rangesview Grove, North
Balwyn, E.8.
P. J. Carwardine, 26 Nepean Highway, Elstern-
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S. R. Hernan, 54 Lascelles Street, Coburg.
D. A. Stewart, 2 Lansdowne St., East Mel-
bourne.
Whitaker, 55 Vincent St., Sandringham,
S.8.
R. M. Kidgell, 308 Waverley Rd., Mt. Waverley.
V. H. Richardson, 70 Devon Rd., Pascoe Vale,
W.4.

SILENT KEY

It is with deep regret that we
record the passing of:—

VK2AHL—"Pop" Lewis.

Results of the distribution of points places
United Kingdom first with a total of 24 con-
tacts for a total of 539 points; and Australia
second with 22 contacts for a total of 468
points. The two Australian stations which sub-
mitted logs were VK5NO and VK2OV.

AMATEUR OPERATORS' CERTIFICATES OF PROFICIENCY

Following is a list showing the names and
addresses of persons who qualified at the ex-
amination held on 14th July, 1959, for either
the Amateur Operator's Certificate of Pro-
ficiency or the Amateur Operator's Limited
Certificate of Proficiency (designated by an
asterisk).

It should be noted that the list does not in-
clude the names of persons who failed to
qualify for a full certificate but passed in the
subjects for the limited certificate.

New South Wales

G. B. Barry, 22 High Street, Cessnock.
G. F. Morris, 97 Hill Street, Gosford.



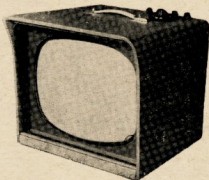
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 J. M. McConnell, 7 East Como Pde., Mentone, S.11.
 A. J. Turner, 14 Airlie Avenue, Armadale.
 H. A. McWhellan, 591 Heatherton Rd., Dandenong.
 N. D. Bailey, R.A.A.F., "Froggnall," Canterbury, E.1.
 *P. A. Brown, 23 Wentworth Ave., Canterbury, E.7.
 † Not 16 years of age till 28th April, 1950.

Queensland
 *C. C. Bunn, 66 Bell Street, Biloela.
 *R. D. Silver, 26 Jack St., Kedron, Brisbane.
 D. B. Hughes, 60 Mayne Rd., Bowen Hills, Brisbane.

South Australia
 *W. M. Crawford, Box 147, Narracoorte.
 A. L. Goldfinch, 636 Seaview Rd., Grange.
 *A. W. Anderson, 272 Fullarton Rd., Netheby, Mitcham.
 *R. R. Shinkfield, 7 Derwent Ave., Rostrevor.
 C. J. Tatum, 24/4 Port Road, Elizabeth.
 M. H. Bone, 1 Dean Grove, Marysville.
 W. R. Edwards, C/o Post Office, Alice Springs.

Western Australia
 C. T. Power, Box 377, P.O. Geraldton.
 *G. W. Cattach, South Western Highway, Yarloop.

Tasmania
 *J. H. Schuringa, Tasmanian Beach.

NEW SOUTH WALES

The monthly general meeting of the N.S.W. Division was held on Friday, 23rd October, at Science House, Gloucester St., Sydney, where each fourth Friday of the month such a meeting is held, and at which we cordially invite visitors and members who may be visiting Sydney. This month the meeting was a very special affair and took the form of an "Old Timers' Night," which was very well attended by some 30 or 40 members. An old timer, by the way, is one who has had his license in excess of 25 years.

The meeting was opened by the Divisional President, Dave ZEO, at 7.45 p.m., who welcomed the gathering, which included visitors, ZLAWM and VK3CX.

Dave then called Bill ZH2, a Past Federal President, to the chair and introduced the Old Timers. Those called on to reminisce were: Wal Hannan (2AXH), one of the founders of this Division; Jack Pike (2JP), possibly one of the more elderly members; Basil Cooke; and Joe Reed (2JFR), recently recovered from an illness which had curtailed his activities, and another active in the Amateur field. All speakers spoke of their activities of the past, at a time when this Division had a total membership of some 14 enthusiasts, who laid the solid foundation on which this Division of ours rests. A considerable amount of gear, some dating back to the early Twentieth Century, was displayed to the interest of the members and the boys described the manner in which this gear was used, possibly one of the most interesting of the gear was a crystal detector which Jack 2JP constructed in 1910.

Bill Moore then handed the chair to Lionel Swain (2CS), another Old Timer of some 30 odd years Amateur life, who produced his original notes and records, and then, short wave bands of some 40 metres. Lionel dealt at length with early activities in Newcastle, and with all the gear, and the boys described the manner in which this gear was used, possibly one of the most interesting of the gear was a crystal detector which Jack 2JP constructed in 1910.

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many of the smaller meetings to be held there and to house the library and other facilities for members. Among those who spoke on the proposition were VKs 2YB, 2AGW, 2GW, 2AGH and 2CS, who all stressed the need for such an investment by the Division. A motion was passed authorising the Council to proceed with the matter as soon as suitable premises are found.

The meeting closed at 10.30 p.m. and all adjourned for coffee and the ragchew which was to be expected on such an occasion, and it was evident that many old associations and friendships were being renewed.

The Sunday broadcast on 26/10/50 was conducted by George 2CB and was commenced with an excellent relay from Lawson on the Blue Mountains on the occasion of the Blue Mountains Section Convention. Max 2OT opened the broadcast by reading from a Sydney newspaper of 23rd March, 1910, which reported a meeting of Amateurs who formed an association which later became the Institute. With this and other information in our hands, we can lay the claim to being the first Amateur organisation to be formed in the world, and one which will be 50 years of age in the coming months.

Our Divisional Convention, to be held at the home of 2WI, Quarry Road, Dural, on 30/10/50, will emphasise our 50 years of age, and will be as grand an affair as any we will be a full day of interest for all with plenty of good prizes, excellent displays of gear for enthusiasts in the form of a s.w.l. group, s.a.b. and transistorised gear. An excellent evening show is being arranged with further interesting prizes including a treasure chest, and a non-stop form of entertainment will carry on throughout the day, commencing at 2 p.m., when the Convention will be officially opened by the Divisional President. Registration will commence at 1 p.m., bring your picnic hamper; tea, hot water, etc., will only be some of the good things on the free list. Registration will be inexpensive. No bring wives, girl friends, kiddies and all your relations to make the day a bumper success amid pleasant surroundings.

Slow Morse transmissions are conducted by a panel of operators each night of the week on 3535 kc. at 7.30 to 8 p.m. These transmissions, under the call of 2AWI are creating a large amount of interest and are being listened to by those who are endeavouring to get their A.O.C.P. in the future. Our thanks go to the operators who are doing such a sterling service in making this scheme possible. We would like to hear from all participants and get their views on the matter and would be pleased to receive any suggestions to improve the service.

We have noticed recently that some of the many clubs in the State are not relying on the call-back to clubs following the broadcast. This is regrettable, because your scribe regularly indicates your club and gives you to include in these notes each month, and to give YOUR club that publicity which is the life blood of any new organisation. So, we do suggest that your activities be relayed to us by this means, apart from demonstrating to all listening, and many other than Amateurs do so regularly. Also, your clubs are vying to assist Amateur Radio by providing a regular meeting place for fellows to get to know one another. This exchange of ideas and information by all is all the most valuable feature of our hobby.

The Albany Club recently held an Open Night when members brought along their parents and friends to see the progress made in the very new club. The boys and girls, a sizeable amount of young fellows who are being instructed by several older Amateurs to A.O.C.P. standard by means of the W.I.A. Correspondence Course, and although in temporary recess owing to the present school exams, is making excellent progress and will, we feel sure, make a fine contribution to the future. Practical work for these students is provided by the construction of the club's equipment.

BLUE MOUNTAINS SECTION CONVENTION

The Blue Mountains Section Convention was held at Lawson on 25th October in the lovely setting of the Hotel Pines. The boys and girls, a sizeable amount of young fellows who are being instructed by several older Amateurs to A.O.C.P. standard by means of the W.I.A. Correspondence Course, and although in temporary recess owing to the present school exams, is making excellent progress and will, we feel sure, make a fine contribution to the future. Practical work for these students is provided by the construction of the club's equipment.

The Committee organised a Convention which was an unqualified success and augurs well for the future activities of the Section. A number of competitions were held during the day and the lucky prize winners were as follows:

OBITUARY

ALBERT W. ("POP") LEWIS, VK2AHL

With regret I have to record the passing of Pop Lewis, VK2AHL, on November 1, 1950, at the age of 62 years.

On the 22nd January, 1957, Pop (he was never called anything else) came on the air for the first time with an ATS-ARS combination and I had the pleasure and honour of being his first contact. Within four months ago he was extremely active, having many thousands of contacts on 40. I doubt if there is a VK on that band whom he has not worked and it was only his limited power and crystal control that prevented more contacts from afar although several times he worked ZL and VK. Unfortunately, Pop was not in good health, trouble dating back to World War I. of which he was a participant, and at times the pain he suffered was unbearable, but he took it in his stride and was soon back talking to his friends.

Four months ago Pop was warned by his Doctor to keep off the air so every day he would just listen in to the "Goon Show" of which he was a member. On 29th July he broke into the group saying he was still not the best—that was my 1,320th and last contact with him.



For many years he worked for the Metropolitan Water Board and not long after he resigned from there he unfortunately lost his eyesight due to a cataract operation. Receiving his Amateur ticket certainly gave him new life and interest and except to the end, he had exceptional memory—in fact there were quite a few that did not know of his affliction nor the fact that he was also deaf in one ear, and suffered from arthritis.

The Buccaneer of Burraneer, as he called himself, was always willing to give a helping hand and friendly advice and as one of the official arm twisters, he plugged the I.T.U. fund every time he came on. One slogan I recall was, "Don't be a Yid, give a Qid."

Spansored and helped by the following: 2SAB, 2FG, 2EN, 2VCS, 2AG, 2ZL and 2AZE. Pop was out an excellent signal. Having met him personally on several occasions, I was struck by his quiet demeanour, excellent spirits and sense of humour. Esie, his XYL, gave him great support and encouragement and attended to his QSLing.

Pop is survived by Esie, his parents, and six children: Keith, Buck, June, Melba, Elaine and Gwen.

Vale, Pop. A gentleman and an Amateur.
 —VK3AQR.

Hidden Transmitter Hunt, Bob 20A, 1st; G. Nixon-Smith 2AGN, and N. Wilde 2DR, de-headed for 2nd place.
 Blindfold Tx Hunt: 1AGM, 1st; Ladies' Blindfold Tx Hunt: Mrs. 2RH, and the junior division of the hunt was won by Lesley, daughter of 2CZC.
 7 Mc. Scramble: Jim 2PM, 26 contacts, 1st; 2AWZ, 25 contacts, 2nd.
 144 Mc. Scramble: 2AWZ, 1st; 2ZBX, 2nd.
 Visitor travelling longest distance: 1ZCA.

QZ DE EMERGENCY

Cyclonic disturbances have been prevalent in the State during the last few weeks, and on one such occasion, on 30/10/62, the cyclone raged over a large part of N.S.W. and severe flooding and damage was sustained in many areas. Possibly the hardest hit was the South Coast and communications failed between Bega and Sydney.

Contact was made with Sydney by 2AYW from Bega, with the assistance of 2AGP and 2ANB in the morning and later 2ASFP came on and provided a link with the city.

The N.S.W. Divisional Emergency Station 2WI at Dural was opened before noon and was manned by 2MP, 2EO and 2AGS, who maintained communication with all areas until the emergency had subsided at 5.30 p.m.

The value of such an Emergency Network as W.I.C.E.N. must be evident to all and with the forecast which we are receiving of possible further such weather ahead of us in November, we strongly urge all to take their part in W.I.C.E.N. exercises which are conducted from 2WI. The Scouts' motto of "Be Prepared" is one we should all follow at all times as we never know when our services will be needed. In case of emergency first make contact with a Sydney station who will then be able to ring the W.I.C.E.N. Co-ordinator at YL 4653 and steps will be taken immediately to establish communications from 2WI.

The latest activities of W.I.C.E.N. are broadcast in the Sunday broadcast and we ask that Bob and his assistant, Max 2MP, be given the support which they deserve in their task of organising an efficient Emergency Network in this State.

HUNTER BRANCH

The usual monthly meeting of your Branch was held on 9th October when the following ads attended an informal meeting: 2SP, 2XT, 2ZDF, 2ZDL, 2ZMG, 2AFA, 2AKX, 2AOR, 2AQR, and associates Sutherland, Bailey, Gray, Fyfe and Stobbs. Apologies were received from 2CS, 2ZL and 2XQ. The chair was taken by V.P. Bob as President Lionel was attending a farewell to his predecessor. A little business was taken care of and an appreciation of the excellent work done by a Secretary Gordon in arranging the Annual Dinner and Blackalls Field Day. Stuart gave a short discourse on his activities, whilst in VK3, on a h.c. opportunity. Day was also taken to wish Bill 2XT all the best to himself, XYL and harmonic on his two months trip overseas.

The meeting then adjourned to another room where several films were projected by Keith 2AKX, as operator. Quite an interesting show, despite the fact that the film broke several times and a lamp gave up its shoot.

The final meeting for the year will be something similar to last year when there will be coffee and eats.

Several birthdays were celebrated in Oct: Ivan 2AIM, George 2ADZ and Bill 2ZL suddenly found that they were one year older. Ivan was up for the "do" and visited the shacks of 2ZL and 2AQR. Also at 2ZL were 2AXH, 2AEY and, of course, the conductors of 2WI broadcast using Bill's AT5 to scatter the doings of the Dinner and Field Day. Whilst on that subject, I forgot to mention that Anthony Mullens was runner-up to Secretary Gordon in the complicated QZ. The winner.

Those who know Harold 2AWH will be interested that he leaves Melbourne for the Antarctic on December 3. Sunspot activity and stormy conditions have made conditions quite bad on 40 these days, so news are scarce. Depressing news has just been received of the passing of Pop 2AHL, and I hope to have the honour of writing a eulogistic letter on this issue.

Don't forget the next meeting at Tighe Hill on December 11 at 8 p.m., and to those who will not be able to make it I extend the Season's Greetings—2AQR

CENTRAL COAST ZONE

The weekly net continues every Monday at 8.30 p.m. on 3635 Kc. On some nights as many as ten stations have joined in. It is usually conducted by Reg. 2AI, operating under the Gosford Radio Club call, 2AFY. Reg is away from time to time but usually takes him the Riverina and VK3. His job is helping to decide which nag comes first.

The recent visit to Channel 2, ABN, through the kindness of 2AGS, was an eye-opener in more ways than one. We saw two live shows being produced and were amazed by the preparation and planning and the activities behind the scenes. The technical gear seen was quite remarkable.

Jack 2FJ is very active on 80 mx phone. He lives in the wilds of Saratoga. Fred 2ALA is troubled by t.v.i. and has nearly finished his fourth re-build in six months. 2YA arranged the recent Gosford Radio Club's exhibit at the Gosford High School Science Exhibition. Unfortunately, severe QRN prevented link-up between pupils of Gosford and Inverell and Coffs Harbour High Schools. 2ADT, 2GR and 2XS were heard, but QRP this end did not win through.

2AUX misses his 20 mx quad, recently blown down in the gale. 2AXH still heard on 80 mx phone and sounds as fit as ever. Major 2RU is re-modelling his shack and building a more compact tx. George 2ZDC, from Wyong, is reported to have gone West and finished up in VK8. 2ASA not heard lately, due to holidays and too much t.v. business. 2ND active on 40 mx phone, uses a Command tx with plate mod. Harry 2LX active on 20 and 10 mx phone.

Associates Ken Harriman and Frank Jarvis on out on their farms have a private 600 ohm line erected specially for Morse code practice. They believe this extends for a mile through the orange orchards. A.O.C.P. aspirants continue to come forward. Six members sat for the last exam and we wish them well.

3CN, your scribe, has recovered from a bout of t.v.i. The magic touch was provided by a high-pass filter installed on the neighbour's new set. The distance between the antennae was 25 feet. The installation was such that an earlier model t.v. showed perfect rejection of 80 mx signals, whereas the new model did not. S.s.b. activity on 80 and 40 mx continues.

SOUTHERN CONTOUR

In accordance with usual custom, the December general meeting of the Victorian Division, to be held at the Radio Theatre, Royal Melbourne Technical College, on Wednesday, 2nd December, will be a social and a children's night. It will bring together CXYLs and harmonics, YLs or friends, and make it a bumper evening.

NATIONAL FIELD DAY CONTACT

The Divisional Council has decided to award a perpetual trophy for competition between the zones and affiliated clubs of the Victorian Division in this F.D. contest.

Each competing zone or club to enter a team in the N.F.D. must forward the claimed score, being the sum of both the c.w. and phone scores, to the Divisional Secretary by the same date as entries are due to the Contest Committee. These scores will be confirmed with the Contest Committee.

The winner will hold the trophy for a period of one year.

80 METRE TX HUNT

The Victorian Division's 80 mx Tx Hunt was held on 24th October. The hunters, and indeed the visitors who proceeded to the site with the aid of maps, a good run for their money. The site, chosen by Bob 3OJ, just off Waverley Road, and just to the north of Mount View Reservoir, with a glorious outlook to the Dandenong, was 16 miles airline from the starting point at the north end of Swanston Street, and about 20 miles by road, and it took the winner, Tom 3AOG, just 55 minutes to find the tx. Laurie 3ALY was only a few minutes behind.

The "invisible" aerial was supported right over the access road on overhanging tree branches, and the off-centre feeder run to the tx which was wedged in a clump of grass in an adjoining paddock.

The hunt was not altogether free of incident. Bob 3OJ had a power supply trouble and the tx was not working. He had a cup of coffee before he got started and had a cup of tea in an envelope. Then, just as the tx had been found, the battery began to fail, resulting in the tx weakening and fading away, and slowing almost to a stop. Another battery was hastily substituted and the hunters still to find the tx. The signal was weak and without further trouble.

Last to arrive was Publications Committee-man, 3OM, whose QTH happened to be within 100 yds of the hidden tx, and he was having some trouble from the phone from so decided to join in the search.

In the ragchew after the hunt, another member hunt was suggested and found to be much favoured. The last marathon, put on two years ago by the Geelong boys, was greatly enjoyed, and the Melbourne hunters would like to stage another early in the new year, in appreciation. We hope that the Geelong boys and all who possibly can will join in. Details will be announced later.

In the meantime, the next hunt, the last for this year, will be held on 6th December, when Tom 3AOG will be hiding the tx—3OJ.

NORTH EASTERN ZONE

Seems like the boys around here have the line-up bug with Sid 3CI lining up his xtal filter on the tx; Bruce 3AG taking response curves of the tx in the 3 Mc band. I am building a xtal rig for s.s.b. in the 3 Mc band. Now I can tell you that this really works, having had a demonstration, so I really interested in building a s.s.b. exciter should contact Peter. Seems like we have a new member in the zone with Alec 3FG at Wangaratta. Now Alec, I hope you attend the convention so we could welcome you personally.

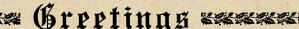
Seems like our old friend, Doug 3J is galavanting around again, this time he is up at Darwin, but at present, I cannot tell you what call sign he will be operating under.

I have an ardent reader of the notes in VK4 land who still likes to know what is going on in the zone. However, I can tell you Les does not like being mistaken for a V. Serve you right, Les, for answering a DX call. Must admit it was a very pleasant QSO.

Alec 3AT has just completed building a stereophonic radiogram; XYL ordering recordings for Xmas, haven't heard if the results are good or bad.

Bruce 3BM (Quambattook) and Ken 3KR visited Bruce 3AAG who has acquired wood working tools to do odd jobs around the place. Bruce has just finished leave and is back at work again.

Word of talk about getting on the air from the Z calls, but up to date very little action. Did you know, fellers, that there are stalwarts of six mx around in 3CI and 3AFF with 3AOG



TO WISH ALL READERS AND FELLOW SCRIBES

the following:-

- Good Health to You and Yours,
- Happiness for ditto.
- Good Fortune ditto ditto.

If you have (a) and (b), (c) is a pushover.

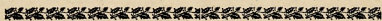
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FOR 1960 — A TOAST

"Here's to double spacing and wider margins on all your copy, and be early or else . . ."

Sub-Editors Mk. I, II, III, and IV.



We'll fellows, this is to be my last episode; time does not allow me to do the job that I would like to. I will take this opportunity to thank those that wrote to me with little bits and pieces, also those who subscribed verbally whether consciously or unconsciously to the notes. To the Editor (I still write antennae while he prints antennae), I say thank you for being lenient with the blue pencil. To one and all, I wish you a MERRY XMAS which will be only three weeks away when you read this. Best 73, Keith 3JC.

The zone has been very active this month with a very well attended Convention, held in Warrnambool on 31st October and November. The first Ham to arrive was Neville, 3ACN from Bendigo, and from 3 p.m. onwards on Saturday, members arrived at the QTH of Bill Wines and received a cup of tea, etc., after which all received hotel bookings. Most of the cars were mobile and were called in by Ted 3PS and Bill, also John 3HW of Ballarat helped us to contact the mobiles; many thanks John, John 3ARJ and Bill 3XE also assisted.

The general meeting took place and many items were discussed, the main discussion being in connection with emergency. JABT were elected equipment officers to ascertain who could be contacted in an emergency. JABT were asked to bring a note of your equipment that can be used to be operated by batteries and can be mobile if required, also the frequency of crystals used and v.f.s.

The fox hunt, which was to take place after the meeting, was cancelled as SACN brought some beautiful films of W. land. After these films, JPS showed some very nice transparent films, which were very interesting. The fox hunt was a bit of a disappointment as you can imagine.

Harry 3HF conducted a few of the boys through the local b.c. station, also showed them his radio controlled gate at his QTH.

The Scramble took place in a Warrnambool park and was won by Gordon 3AGV of Colac, who contacted seven stations; second place went to Bill 3XE, and Bill 3AWB was third.

George 3AOM and his XYL also made the trip and camped overnight at the foreshore. We also contacted his son, Ray 2ANB, at St. Ives, N.S.W., also Ron 3OM who has a very f.h. signal.

We were pleased to welcome members together with their XYLS and harmonics in Stawell last month. The occasion was the State Convention which we had the pleasure of holding in our zone. Certainly hope that everybody enjoyed their week-end in the Gramplains area.

Merv. 3AFO, of Horsham, seems to have been one of our busiest members recently. He has built a new shack and has already begun to operate from it. Herb 3NN, of Yanac, together with help of son Garry, has recently completed job of re-building and placing transmitters in rack and panel lay-out. Max, Herb's other boy, seems to be more interested in

Chas VR1B, of the Gilbert Islands, seems to be enjoying life up there. Hope to be able to work you next year Chas when I have a higher powered tx operating.

MOORABBIN AND DISTRICT RADIO CLUB
At the general meeting held in our rooms on Friday, 16th Oct., it was decided to re-introduce in the near future tx hunts on 80 mx. Ed 3EM accepted the responsibility of tutoring

struction of loops, and I should be able to inform you of our projected movements in the next issue.

The White Elephant night on Friday evening, 6th Nov., was quite a success, much gear changing hands and with a little monetary assistance to the club. A Type 122 and a Type 11 were passed in.

The Annual Picnic is to be held at Toora-wong Reservoir near Whittlesea on 13th Dec., and a good time is expected both by members, XYLs and harmonics.

It has been decided to put a party into the field in February to compete in the National Field Day, using our club call sign, 3APC. This will be organised on a three-band basis, and we expect to score well, so clubs and zones, look out for that perpetual trophy. We may snaffle it!

QUEENSLAND
BRISBANE AND DISTRICT

OK, so I goofed about T.v.i. last month, but the h.f. boys are not being troubled by gun toting neighbours who are making like Maveedick or Wyntt Eyrrp for having their "one-eyed monsters" fouled up. But the v.h.f. gang are! Whatever type of T.v.i. is causing the 144 Mc. boys to play havoc with Channel 9, has me tricked, but I do know that the T.v.i. Committee will do their darndest to clear things up. So I suggest you contact "Tibby" Scholz, 4HR, who lives at the smarter end of Morningside, 95 Stephens Street. What say, Tib?

Talking about v.h.f., it looks as though two is being populated again in between JA break-throughs on six. Noticed a nice two mx yagi above the six mx one at the QTH of Tom 4ZBH. With the population on the v.h.f.s, and absence of stations on the h.f.s., it looks as if it will be one of the Limited boys who makes the first W.A.B.S. (Worked All Brisbane Suburbs).

On the subject of beams, it costs at least £20 to have a t.v. antenna erected, but Harry 4HA found a wonderful substitute. He had been using "Rabbit Ears" and just for the fun of it, he connected his 20 mx quad onto the picture maker, turned the quad towards the

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summit and found that it worked wonderfully. Want to hear something funny? His son has an indoor antenna on his t.v. rx and a t.v. antenna salesman urged him to buy an outdoor multi-element array because "an indoor antenna weakened the rx!"

One landmark in Lamington Avenue, just two hoots and a holler from Brisbane Airport, has disappeared. Tom 4TF had a quad in his backyard; now he has a t.v. antenna on the front of his house and no quad. I'll bet the quad or some other beam goes up when the novelty dies off and the eye-strain starts.

It looks as if Del 4RJ will be on the air a lot more in the near future. Del is retiring soon after a lifetime as a Methodist Minister. Isn't Ham Radio a funny hobby? I've had many an enjoyable QSO with Del when he was in Warwick and Brisbane from QTHs as far apart as Brisbane and Guam, but have never met him personally. Last week I saw a photograph of him, taken by a friend of mine for a Parish magazine and had to be told who it was.

Frank AZM was quite concerned about complaints that he didn't take the 30 mx hook-up every Sunday. He has a "week-end" up at Tewantin and is a very enthusiastic angler; in fact he had a strange idea that he was going to make a thousand pounds a few weeks ago by landing "Tim-the-Bream." He asked me to say that if he had more than three or four regulars he would be able to understand the complaints. Fair go, boys, everyone needs an occasional week-end off, especially when they are taking the bait up at Tewantin.

As is usually the case, the fourth Friday of December falls during the Christmas break and there won't be any December general meeting, the next being on the fourth Friday of January 1963. Talking about dates, an anniversary a couple of months ago went unremembered. On Saturday, 2nd September, twenty years ago, a lot of the boys received a telegram telling them to stay off the air because there was likely to be a war. It came the next day, 3rd September, 1938; remember?

Well, gentlemen, I'll have to cut it short, but hope to have more gossip after the Christmas holiday period. This is as good a time as any to wish all our members, their families, my fellow scribes in the other Divisions, and our Editorial and printing pals in Melbourne, a very Merry Christmas and a Happy and Prosperous New Year.

See you in 1960.—4PR.

The monthly general meeting of the VKS Division was held to start at 7.30 in the clubrooms at 17 Waymouth Street, and took the form of a buy and sell night which, due to the laws in that State, is only another way of saying that the members of the VKS are extremely fortunate in having such a handsome, athletic, efficient, brainy, and romantic looking auctioneer, and that the VKS is one of the most profitable table after being introduced by my partner in crime, Norm Coleman, the tumultuous and hysterical applause of the members of the VKS Division.

When order had been restored, when the old tomatoes and broken eggshells had been swept up, when some kind person had assisted to clear the floor, and when the auctioneer had only then did the auction begin. You cannot but note that no reference has been made to anything that has been said, but that is a matter of the real relation that nothing of any note happened. The meeting was opened by the chief of the Wombi-Wombi tribe, I beg your pardon, the chief of the Wombi-Wombi tribe, Brian SCA, and despite his moving appeal for general business, nobody was having any, and after new members, SCA's correspondence, and other matters of SCA's, the meeting was one or two other matters of minor importance, the business part of the meeting was the distribution of cards pressed by the VKS Division, and the VKS Division spoke.

A ballot was conducted for the disposal gear and those who were successful have no doubt been advised by now. The amount of gear for sale was not up to previous nights, but due to the enthusiasm of the bidders, the market was twice as big as it had been before, and other sundry interruptions, the meeting closed at 11 p.m., although Gordon SXU threw the last of the audience out at 11.30 p.m. The fire hydrant was used for the first time officially and unofficially on the footpath for some time, although I could not but note that Leith S.G. practically ignored the fire hydrant, and occasionally even the fire engine, as it was healked. The fire hydrant, probably re-

membering their last argument regarding the merits of c.w. and phone, gave him look for look, with Keith finishing up slightly redder in the face than the hydrant.

Talking to the President of the VKS Division, Brian SCA, whom you will remember has just returned from his annual inspection and examination of the smoke signalers' club of the Wombi-Wombi tribe in the far, far, North, he told me that he was not feeling his best whilst away and was glad when he could come back to our fair city. The chief of the Wombi-Wombi tribe, when interviewed by the VKS Divisional scribe, said in tones more of sorrow than in anger, "Big city chief, him no good, him weak in stomach, him no like witchety grubs, him plummy washout!"

Noticed Jack SJS in the audience at the meeting and appeared to be enjoying himself. Active these days on 288 Mc, he is still his cheery and voluble self, and as I left the meeting he was entertaining a large group of the younger members with tales of the "good old days," and believe me there is no one in VKS who knows more of those days than he does, but look out for him, he is the biggest leg-puller this side of the black stump.

There is no doubt about it, it is either a feast or a famine. Two months silence from the S.E. gang, and then Claude SCH arrives. Col SCJ sends me a letter, and to top it all, Stuart SMS comes along to the meeting. Information obtained from them all should keep the wolf away from the door for this month at least, to say nothing of keeping my palsy-walky the editor happy. He was getting quite worried because I was writing almost nothing each month. Put that red pencil down at once, Sir!

Claude SCH is due for annual holidays as soon as he returns to the Mount from the big city, so possibly he will be heard on 40 at odd times during the day. He has a big construction programme on for the shack at the moment, so possibly he will concentrate on that instead.

Tom STW is back on 40 with telephony after quite a break and seems to be getting quite a kick out of his many contacts. Will be looking for you OM. Stuart SMS has his new tx on the air and is quite satisfied with results. Handswitched 80-10, with a Gelooso exciter, it finishes up with an 813 and has plenty of wallop.

Leo SGJ is still getting among the W signals on 30 telephony and seems to have no trouble in contacting them whenever he wants to. Erg SKU is another one who is getting his share of contacts on 40 and 20 c.w., in fact it could be said that he is getting more than his share, every time I call on the band they all seem to go back to Erg. Dave 5AW, who is located at Penola, has a xtal controlled rx and tx on 288 Mc., and has also been heard on 40 and 80. He has built a one-eyed monster but apparently this has not interfered with his Amateur activity. Don 52BG has still to make his appearance on the air, but if rumour is to be believed, it will not be long now.

Back in what has come to be known as the "good old days," when c.w. was a lot more popular than it is today, there used to be a type of pest who rather fancied himself as an expert on the key, and no matter with whom he would be in contact, he would tear along at 40 w.p.s., even though it was painfully obvious that the chap at the other end was not able to follow him. Now that s.a.b., d.s.b. r.v.p., s.w.i.k., to say nothing of several unprintable other forms of transmissions, are rapidly coming to the fore, a new type of pest has arrived. To wit, the chap who will persist in coming back on s.a.b., d.s.b., etc., even though the other end has indicated quite clearly that he is in difficulties. The c.w. pest eventually died out when he found that contacts became harder and harder to get, so I suppose time will take care of this new problem.

Frank SMZ was noticed at the general meeting and looked fighting fit. He was not too well a little while ago, but seems to have shaken it off now. He tells me that he is taking it easy these days with a little radio and a little t.v. Hope it remains that way OM, don't make it a no radio but lots of t.v. policy, your cheery voice would be missed.

By a strange co-incidence I was listening on 21 Mc the other day and by another strange co-incidence I heard Athol SLQ and Lionel 5LB in contact. By another strange co-incidence they were sitting together at the meeting, in fact it would be a strange co-incidence if these two Radio twins were ever seen apart.

Luke SLI is on the air with a brand new tx, a pair of 614's in the final too, and he is

tickled pink with the results. Had a little bit of trouble at first with some missing drive, but when he put on his Sherlock Holmes deer-stalker cap and took out his outsize magnifying glass, it was only a matter of time.

The news from Crystal Brook this month is rather ominous. Bert SBB is being attacked with the t.v. fever. Pete 5FM is playing with t.v. sets, and the worst news of all is to the effect that Bob SBG is busy constructing t.v. aerials by the dozens. The Crystal Brook bird world has voted him as their number one friend due to the number of perches he is providing.

Talking to Al SMF at the meeting and he said that he was active on 288 Mc, with the idea of giving his harmonics a chance of seeing just what makes Amateur Radio tick. From all reports they are very much interested and look like being recruits to the grand old hobby.

Bernie 5WC, who is the prime mover in any activity from the Woomeera Radio Club is now on s.a.b., or as Comps SEF has been heard to say, "Graduated to the ranks of the men in radio." My retort is of course unprintable.

Did not see Tom STL whilst he was down in the big city recently, this is not surprising I suppose, when you consider that he was down on "Departmental business." That always intrigues me, makes me think of MIS, disguises, heavily cloaked strangers and plenty of hush-hush, to say nothing of furtive looks and all that goes with espionage. To keep the record clean, I happen to know that he was down on an office management course, so if any reader is seeking an efficient office manager they will know to keep away from Tom.

Fred SMA has been decidedly busy this month, but not with radio, no sir, busy with the rotary hoe. My spies tell me that he has been handing out some very nice mulberries to various people, and it has been suggested that I would have liked to participate in the said handout. I deny this, because I always have trouble with mulberries, they fly to my stomach! Hughie SBC has of course been on holidays and has not yet settled down to the daily grind. He really should not be in these notes because he is better known as a v.h.f. man, however, I sometimes hear him on 40, in fact I once worked him on that band, and that fact lets him sneak in.

Harry SKW is among the missing this month, but if I remember anything about him he is

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probably up to his neck in some new project which was being related to the missing brigades in due course. Harold SZAB is another member of the missing brigade from the Upper Murray gang. However, my spy is hot on his trail and will be right back in the news.

Save a chap this week that I had almost forgotten as a Radio Amateur. None other than Cliff SCX is still at present very active. He is doing ABSB on the air early in the new year, and among other worries and troubles, he has to cope with the fact that Neil ZAR is still alive and on the air. I want to put that in the notes, Neil. Guess by whom?

Bob SAP is now back at Port Augusta and is happy in his work at the local broadcasting station, the name of which my pride will not permit me to mention. Bob has been with the Commonwealth Railways and the State Railways and is now in the hardest working industry of them all, ahem!

Every time one hears of Victor Harbour one automatically thinks of Pat SHB and his officer, Ron SKN. Pat is fairly active on the bands and Ron is mostly inactive, but let anything resembling an emergency happen in there, these two pair are definitely on the scene. Their work in this field over the past few years has done quite a lot to keep the name of Amateur Radio in the area.

Heard Bill SHR in contact with Les SLC on 40 the other Sunday morning and a visitor to Bill's shack was Arch SKK from Lucindale. They both sounded very happy. I don't recognise Arch on the mike. Les battled with the problem for a couple of overs, and then went out and had a good smoke. He was a bit out of the shed of nails or something, because in true Yogi fashion he came out with the namu, quack as a flash, well almost. Arch refused to pay the 54 dollars because, well someone had rung Les up on the telephone and told him, finally accusing me! How low can one get?

Wally SLE is still building and maintaining completely surrounded in GAZU towers and diagrams. The tower is up and it looks as if before long we in the big smoke will have to put up with our usual tower. Wally has pointed his beam ESE. John SJM, who is a newcomer to the lower frequencies, having had a 2 call for some time, is getting things together and is sure to be heard. I am sure he will be assured of a welcome to these ranks.

Pat SLT is of course to be heard on 14 Mc. It is a pity that he would be heard so often. I wish to suggest that he be heard on any other band and considering his results, I don't blame him. George SEC is occasionally heard on 40, mostly in the middle of the band. He has commercial interests keep him fairly busy and away from Amateur Radio.

Eugene SKV was active from Redcliff on 7 Mc. I heard him in contact with Edna on 14 Mc. I heard him in contact with SWI from Hawker, too. Graeme SKV and Col SKY are active on the bands, and I am sure they will for their coming U.I. exams. We wish them both luck. Dave SBF has not been heard to any extent lately, but he is busy with local affairs and I can only wonder at it. He has been heard on sked with Don SDX on 80 at times, right in the middle of the Black Forest. I am sure the creeps doesn't it. The BBBBBB FFFFFF.

One of the privileges of being old is that one can reveal now and then the inner story of some happening in the secure knowledge that few are likely to read it. I am sure that the fact that I am now rising 96, a fact evidently supported by the editor, bless him, and also in the fact that I did not die last year (I was about to be SKO again) is now no longer an R.I. I can now tell the promised story of how I once pulled the lion's tail and lived to marry it at the end of the day. I was a member of the VKS R.I., but was at times chairman of the Amateur Advisory Committee, and at the same time a keen and active Amateur, not for the faint of heart. I was a member of the committee and you can imagine my horror when one night I switched on the receiver and there was a signal, a very strong signal, 10 kc. apart, from the top to the bottom of the spectrum. Now I ask you, lives there a man with brains so few, that he would not be able to work out, tell you that a signal had shot through? Yes, there does live such a man, stupid me. Did I ring up and give you a signal? No, I did not. I was not attracted to the situation with gulle and craftiness. When he answered the telephone, after an exchange of pleasantries, I said in a voice dripping with honey, "I am ringing to come to you." I did not find out how you have managed to get so many signals out of one single transmitter." This rocker was a very good one. I was not at all sure where on harmonic production, and then excused himself on the plea of urgent business. The fact that the signal, plus all the harmonics, disappeared at the same time was

of course co-incidental. To this day he always refers to me as the seeker of information on harmonic radiation, which only goes to prove that R.I.'s are human beings after all. If he knew how many sleeping pills he would have taken before he was, he would be more amused than he was.

Well, here we are again, December and all that means. The VKZL Contest is on, it is only October, and it is hard to enthuse about something that is a couple of months away. However, the VKZL gang wish all the rest of the VKZL gang a very Merry Christmas, and all you all that you wish yourself, and we all hope that you will all have an enjoyable XMAS and a Happy New Year. Incidentally, all the fighting and battle with my grandson in trying to convince him that Father Xmas will be a bit light on in the pocket this year. He has already presented me with five lists of what he wants for XMAS, and each one bigger than the last! I am going to tell him that Father Xmas left behind a pony, and I will be able to prove it, looiii!

TASMANIA

Congratulations to Bob 7AF on being the first of our members to go in for a swim this season. Next time, Bob, take off your clothes and go for a swim. You will miss the attending dignity, hi!

On the week-end of 24th-25th October, southern members participated in the Jamboree of the VKZL gang. Yes, the VKZL gang was the time to time over those two days by Scouts from the 13th Hobart Troop, and all three chap had a wonderful job in convincing the VKZL introduction Amateur Radio. The respective XYLS certainly deserve a mention, not only for allowing their respective husbands to go on the air, but also for allowing them to be invaded. Bob 7AF also deserves a mention for loaning his 122 set as the means of maintaining communication between the VKZL gang. The VKZL gang, as mentioned above. Although contact with the Jamboree station VEJAM in Canada was not made, the VKZL gang was very successful in the world entered wholeheartedly into the venture, despite the fact that the phone section of the "CQ" Contest clashed, and we in Tasmania were thankful for helping as.

The V.H.F. boys have been busily preparing the rules for the conduct of an Intra-State V.H.F. Contest for 50 Mc. and above, which they will be holding in the middle of the year, either February or March of each year. I hope to have the rules for publication in a future issue. Although interstate contacts will not be possible, the VKZL gang will be looking for any mainland V.H.F. boys at the same time.

Since the last notes, two Contests have come and gone. Namely, the c.w. section of the VKZL Contest, and the phone section of the "CQ" Contest. All bands played their part in both contests. Jack 7TB made 276 contacts in the c.w. VKZL Contest, and Ken 7KA had about 180 contacts, both fine efforts. During the phone "CQ" Contest, I overheard VHBH and 7TB, who had a very good time. I entered the phone contests. This complaint rings rather strange to me as an ardent c.w. man, as I find very few stations on the air, and there are always phone stations nattering away on those same bands.

Our Divisional Treasurer, Snowy 7CH, on the lower frequency bands over the public holidays and long week-ends during the summer. Snowy was a very good mobile operator on the yacht Moorine, and looking for contacts on either phone or c.w.

Alec 7AX continues to be in ill health. We wish you a speedy recovery Alec. Jack 7TB is now employed by a very well known wholesale electrical company, and together with Ted 7EJ from the same establishment, he is studying the mysteries of television. Consequently, both chaps have very little time on the air, as school is three nights a week, and the rest of the time is spent on work.

The excellent address by Joe 7BJ on 7th receivers at the November meeting in the South was taped for the benefit of the other zones. Joe was now employed by the VKZL gang, and produced an excellent block diagram of the receiver under scrutiny. My ordinary beings are now more into the VKZL gang, and I am sure only to the extent not to play around without sufficient test equipment.

George 7GC is back on the air after the winter holiday business in Europe and America. It would be very nice to have an address from you taped George for playing at one of our meetings in the South. How about it, OM?

The Council of this Division suddenly came to the conclusion that not every one in the Tasmanian Division was a Ham, and that there were still a few Hams left outside of Morebsey that would like to hear of our doings. The Council has taken it upon itself, but it is up to it through regularly, if at all possible.

There is a new burst of quad fever throughout the VKZL gang. The VKZL gang has not inflicted as Doug SSB and John 9UR. Doug has his up on a 30 ft. tower now and except for some final checks, it has really put him off in the DX contest. Doug has a lot of his backyard contacts on 15 with Robbie 9RO, there are frequently a stack of Europeans trying to break in. John 9UR has been organised to his own, but working bee has been organised for any lack of activity from this Morebsey kilowatt. Yes, John really has that much power and has a set of spare 15 amp. fuses handy every time he sets the rig up these days. John seems the latest victim of power transits over this wire with the recent loss of his main power tranny that had so many windings it took four new ones to do the same job. John has a lot of contacts on 15, and it is a pity to have hit Rabaul of recent years as there are four in the air over there and all look very much the same. Ian 9VM takes the prize with his rocket launch.

The latest run of DX contests has come and gone. The static level during the phone section of the VKZL Contest was very high, together with poor conditions generally, the showing from all States was disappointing. The c.w. section provided some good contacts though. George 9CW at Sumner, was a silent competitor and I didn't even know he was in it until he told me on the phone next day. Geoff, Bob 9W, was a heavy near the top of the list at Sumner so should really be mentioned.

Two local members have been on leave but should be troppo again by time this is printed. One of the VKZL boys was Sydney 9W, who is to be mobile while he was down South, but guess he spent so much time watching TV that he forgot he had the rig in the car. Norm 9W was also on leave, but he was away for a month or two back and from what my spies tell me, the Sydney boys were glad to see him.

This Division has been fortunate in getting on to some disposals gear at good prices lately. There is no sign of anything coming up again for the time being. The VKZL gang has a lot of stations are interested in any particular gear, and then please drop a line to the Secretary and we will keep an eye open for anything that might be of interest. I am sure we will have a SCRS22 tonight complete except for two 812 tubes for a quid, so you can see something to get your hands on.

Jim 9AS, at Wewak, has been making lovely modulation on 14 Mc. with his new DX100. It appears the Heathkit way is really the shot in the arm for the VKZL gang. The VKZL gang imports have found their way to Goroka with Bob 9AA now sporting an SX100. Bob has had a set of gear, and he is really doing and puts in a good phone signal into this area.

Was in Kavieng a couple of months ago and saw the Viking II, and SX39 at 9CP. Carl 9YT has recently gone across to New Ireland from the VKZL gang. I am sure he will be a good mobile operator when I dropped in and the force of us had a real number one ragchew. The VKZL gang has a lot of contacts on 15, and it is a pity to have hit Rabaul of recent years as there are four in the air over there and all look very much the same. Ian 9VM takes the prize with his rocket launch.

Never seem to hear much of the Lae crew these days. I am sure they are a good mobile operator, but I am sure they are a good mobile operator. I am sure they are a good mobile operator. I am sure they are a good mobile operator.

Bob Sutherland gone walkabout for a while up to his neck in the VKZL gang. I am sure he will be a good mobile operator when I dropped in and the force of us had a real number one ragchew. The VKZL gang has a lot of contacts on 15, and it is a pity to have hit Rabaul of recent years as there are four in the air over there and all look very much the same. Ian 9VM takes the prize with his rocket launch. The VKZL gang has a lot of contacts on 15, and it is a pity to have hit Rabaul of recent years as there are four in the air over there and all look very much the same. Ian 9VM takes the prize with his rocket launch.

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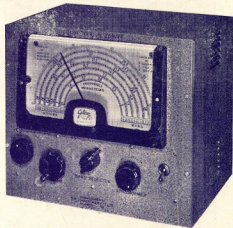
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